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MUSIC COMPOSITION

A NEW METHOD OF HARMONY

BY

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Principles of Rhythmic and
Tonal Notation, etc.

NEW YORK
CARL FISCHER
1918

PREFACE.

DURING the past few years we have seen the beginning of a reactionary period in the art creations and in the teaching of the arts and sciences. At such a time, it is to be expected that there will be extremists such as we see among the creators of some of our futuristic products of art and music; but this upheaval is encouraging to those who have seen the futility of many of our pedagogical methods.

Modern psychologists and educators have abandoned the old ways of teaching — the method of starting every student, regardless of age and personality with the rudiments of the mechanism of the subject at hand. It has come to be recognized that very few persons are endowed with sufficient enthusiasm to bridge over this irksome, sometimes almost unintelligible, period of study to the time when, somewhat enlightened, they can appreciate and enter into the attractiveness of the subject.

One of the most conspicuous examples of the old order in pedagogy is in music composition. For fear that a student would make "grammatical" errors, the subject has been taught by a series of rules ingeniously made by academicians — a series of *don'ts* which too often inhibited all spontaneity in the student. Instead of allowing the student to express himself, and guiding him in his self expression, the old method gave the student his set of rules, and woe to him who disobeyed them whether or not, in so doing, the result was artistic.

This "indirect" method of teaching harmony consists of giving the construction of chords and formulating rules according to their "grammatically" correct progression one to another. Usually a bass part is given and the student writes the chords above the bass. The inevitable result is a mechanical correctness in which the student who is mathematically inclined will be infinitely more successful than the one who is musically inclined. The student writes chain after chain of chords in which there is no meaning, no form, and no sense of relative values. All the vitality and art in music are removed and the student usually becomes, not an artist, but a mechanician. Furthermore, the student learns all the forbidden combinations and progressions of the conservative theorists, but when turning to the works of the modernists and even to the works of the older masters, he is confronted with parallel perfect

fifths, cross-relations, augmented progressions, unresolved dissonances, two or more progressions of a fourth or fifth in same direction, *et cetera ad infinitum*.

Music pedagogs can profit much by a study of the changes going on in the methods of presenting other subjects; of the way many other subjects have benefited by taking cognizance of data which modern psychology and pedagogy have to offer.

The "direct" method in the teaching of music composition is sure to come. Our thesis is, *allow and encourage the student to compose*. We would not think of forbidding our children to write letters until such time as they had learned the entire contents of an unabridged Webster and had learned all the rules of English grammar. Rather we encourage the child to express himself with whatever vocabulary he happens to have. Although there are approximately 450,000 words in the English language, Shakespeare used but 15,000 and Milton 10,000.

The following text has been written with the above thesis in mind. Rules and *don'ts* have been avoided in so far as seemed possible. The indirect method has been resorted to only where the direct method fails in print, because in such places the personal factor is often necessary.

All students of composition cannot be composers, but all can be trained to appreciate, understand, and interpret the works of composers. Whether or not the study of music grammar, alone, will bring about such results will not be argued. Grammar has its place in any scheme of procedure; but its place should not necessarily be the initial presentation, nor the most important. Spontaneity, interest, and appreciation are the desired goals and the prevalent method of teaching is a menace to these three qualities. Now and then a genius escapes, but geniuses are in a startling minority.

In this method, the author hopes to make the study of harmony not the dry and difficult subject which so many proclaim it, but an attractive subject. If the order and manner of presentation permit spontaneity and self expression, the object of the work has been accomplished. Even if, in this text, academic considerations are sacrificed to spontaneity, interest, and appreciation, the work has not failed; but the author believes that no such sacrifice will accrue.

The author affectionately extends his gratitude to his wife, Marion Dillon Gardner, for her sympathetic aid, criticism, and suggestions.

C. E. G.

CAMBRIDGE, MASS., 1917

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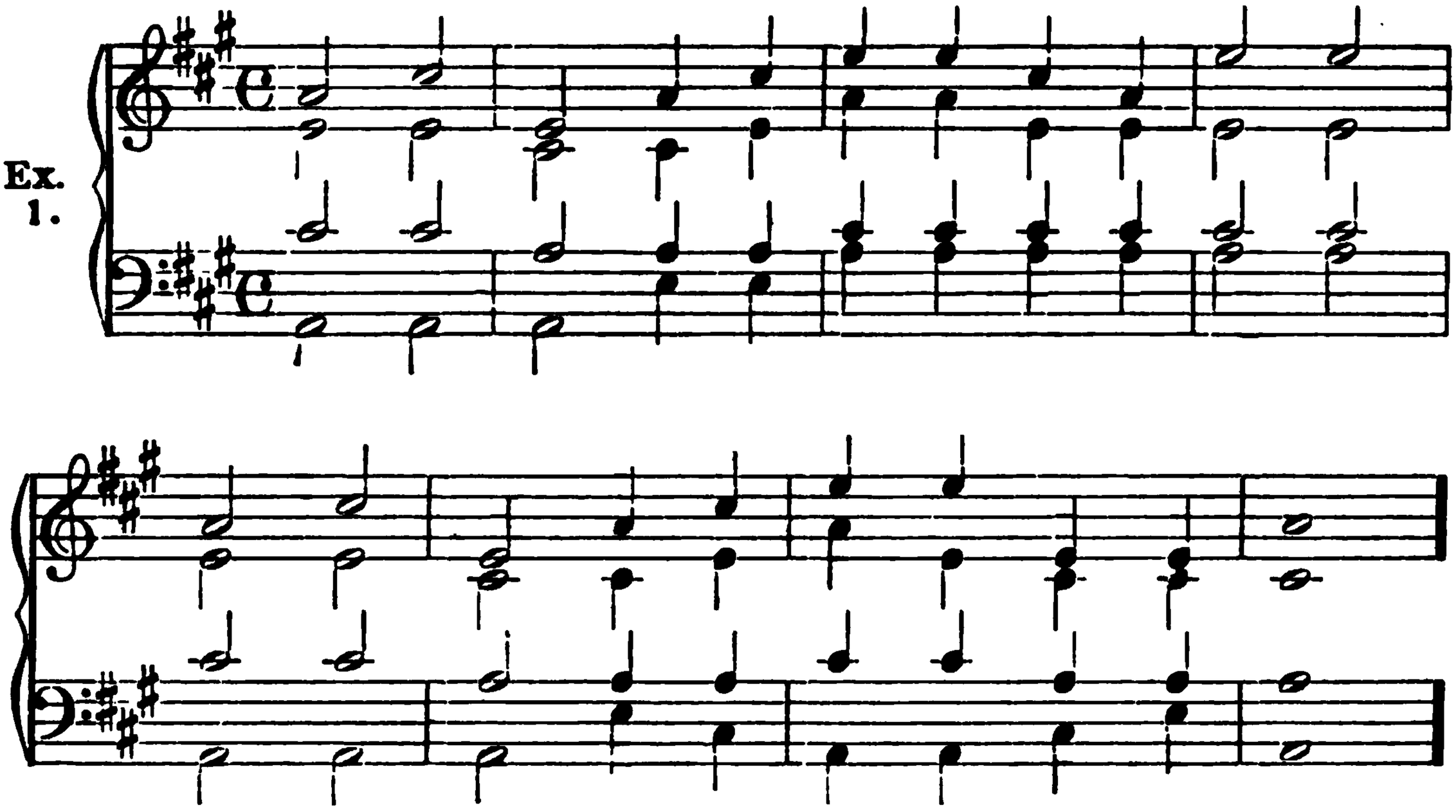
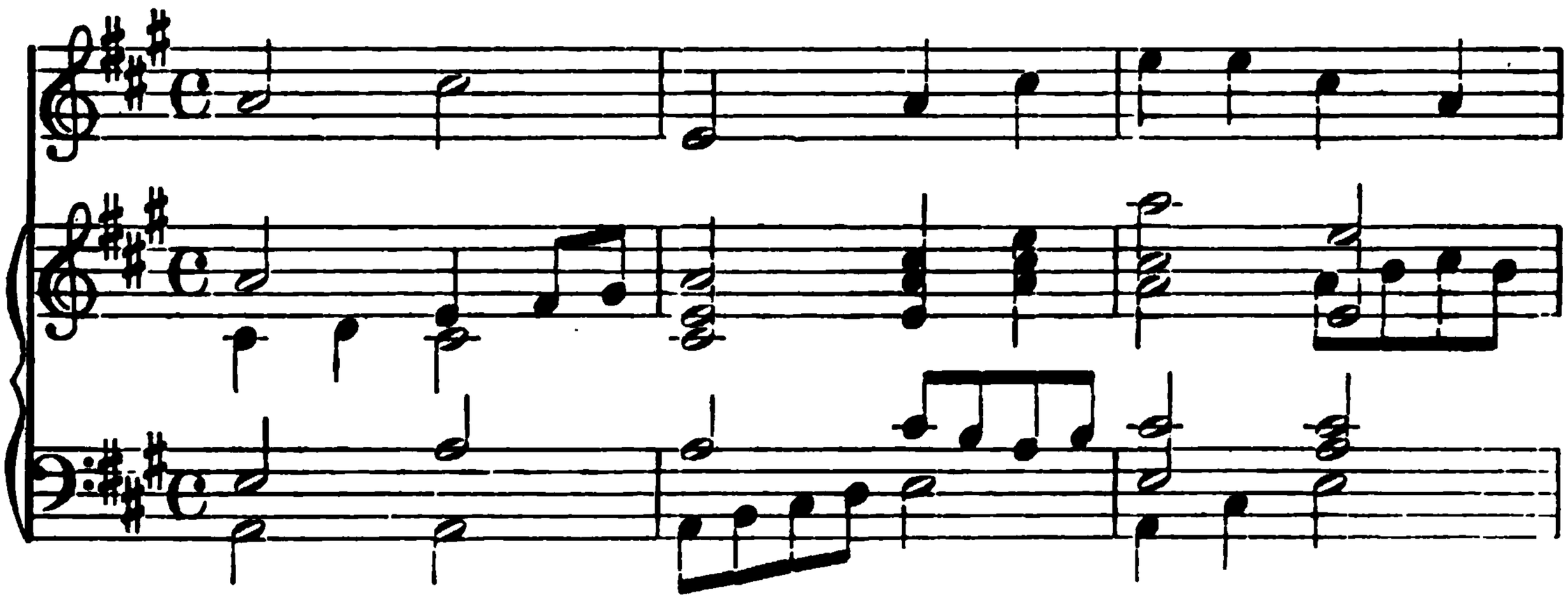
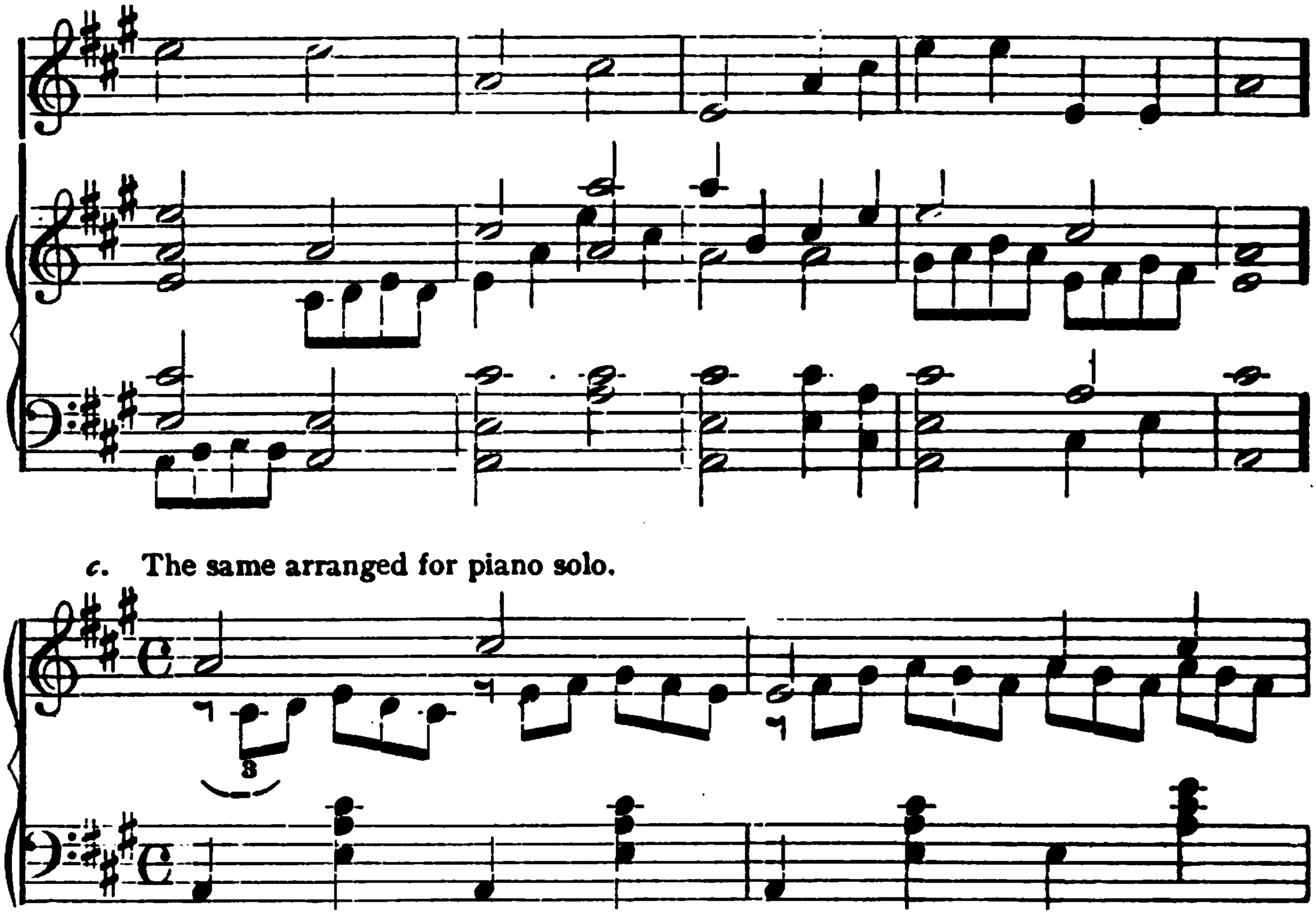
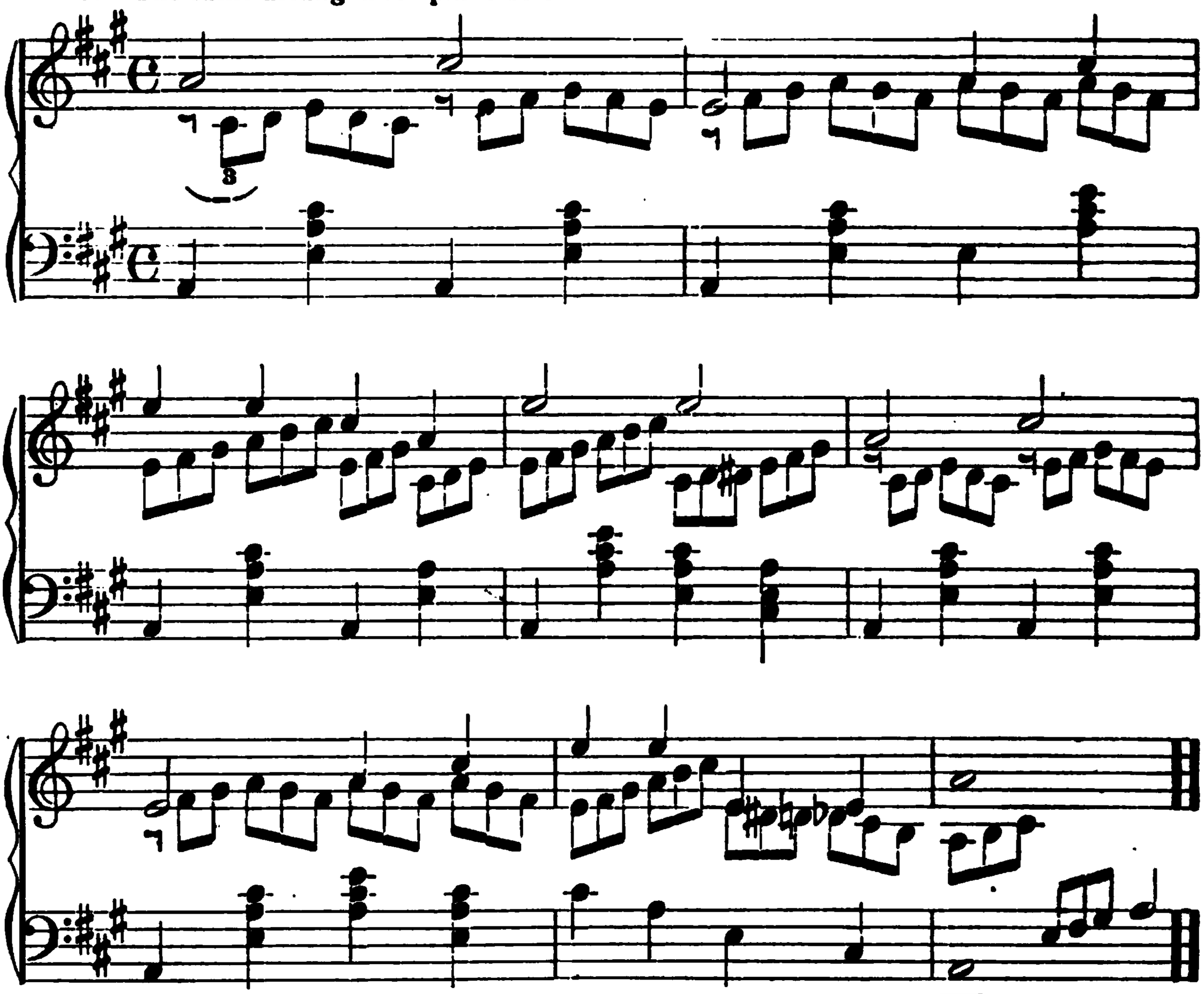
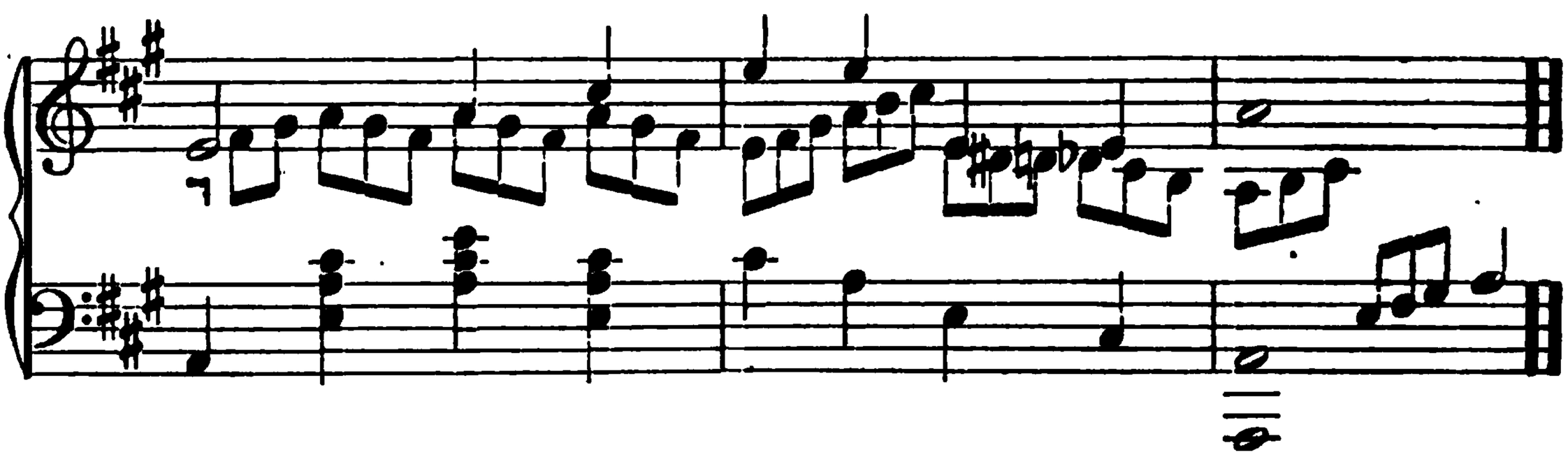
TO THE TEACHER.

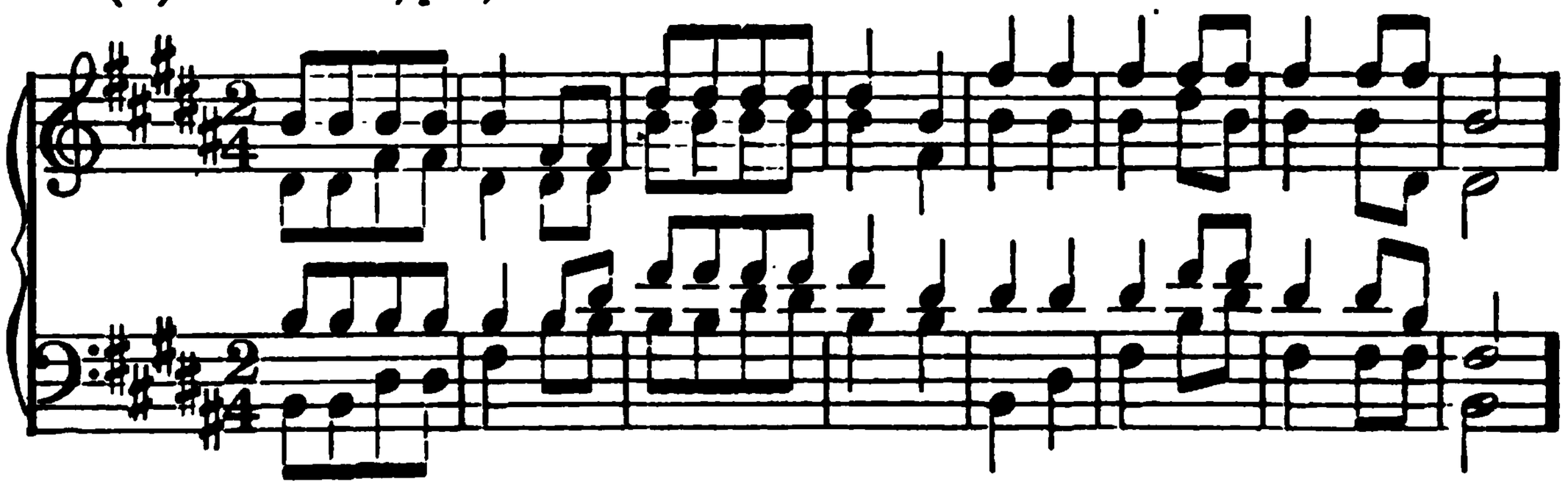
The author realizes that, at first glance, the average teacher will object to the method of presentation in the opening chapters. The first objection will be to the limited scope given the student in the second chapter. It may be argued that in certain places in the exercises, the student's ear will desire some other chord than tonic, but to the use of other chords there should be no objection for here the student is asserting himself. The following results obtained by E. W. Harrison, of Boston, show the possibilities in the material.

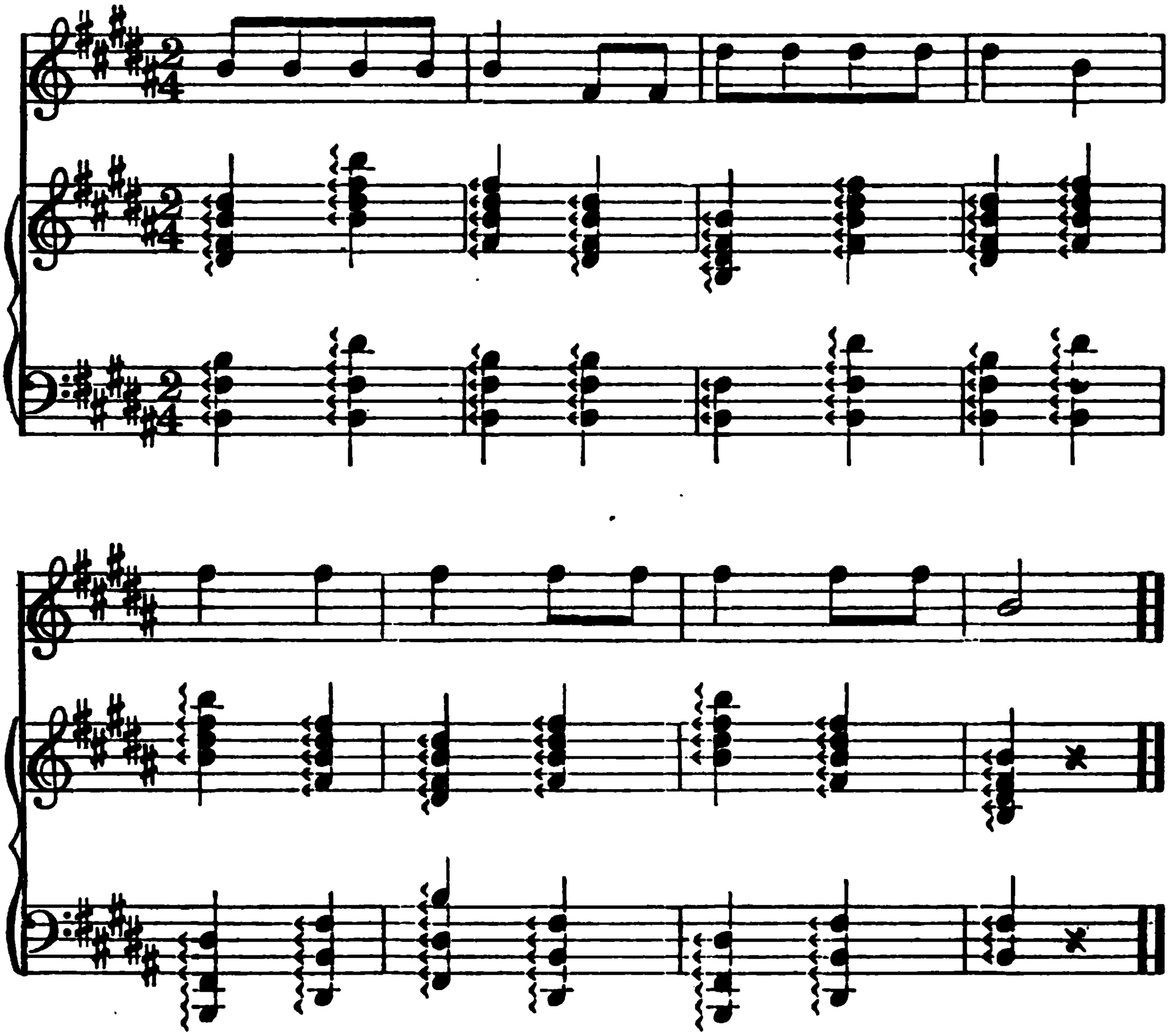
(*a.*) Exercise 1, p. 8, harmonized for four voices with tonic chord.

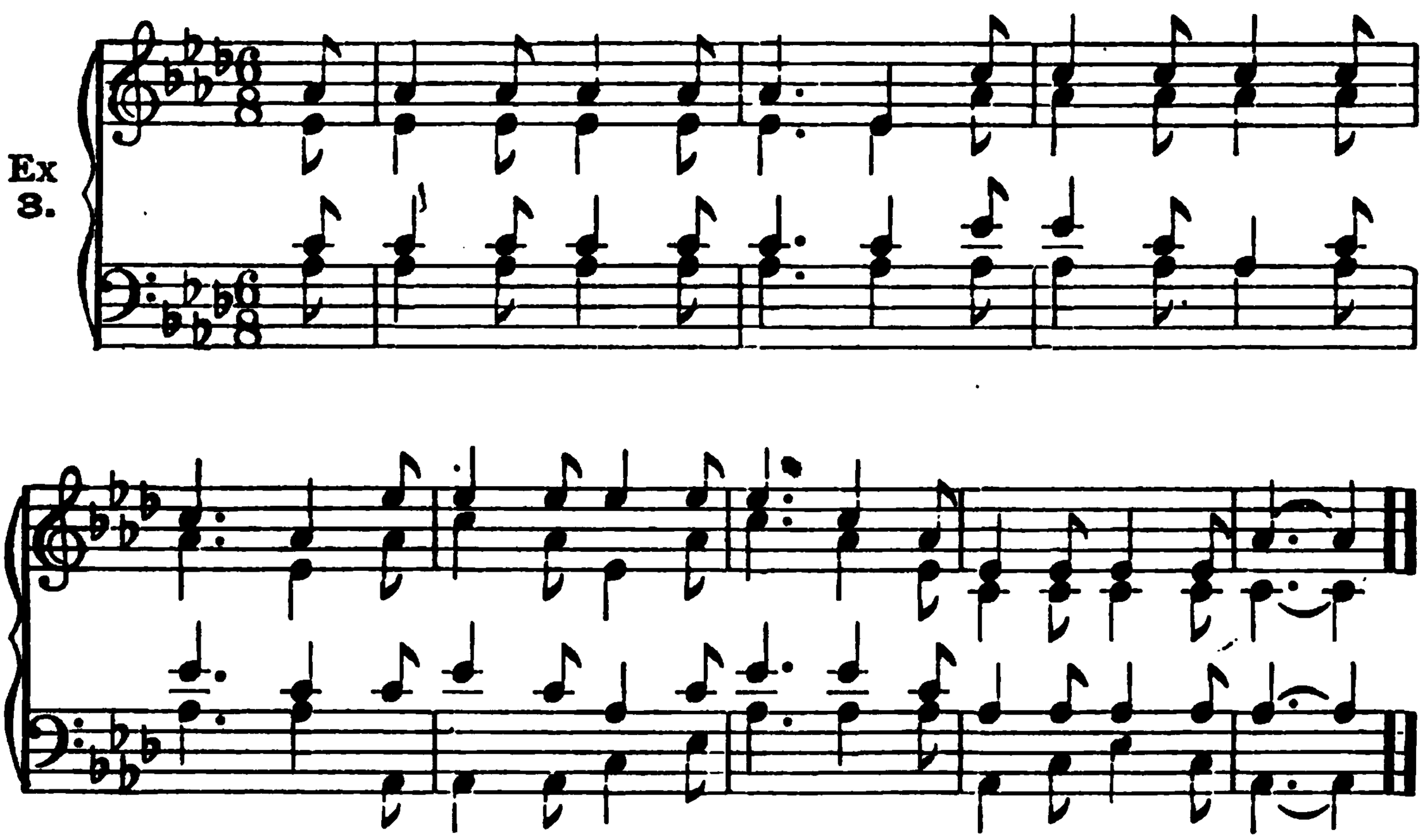
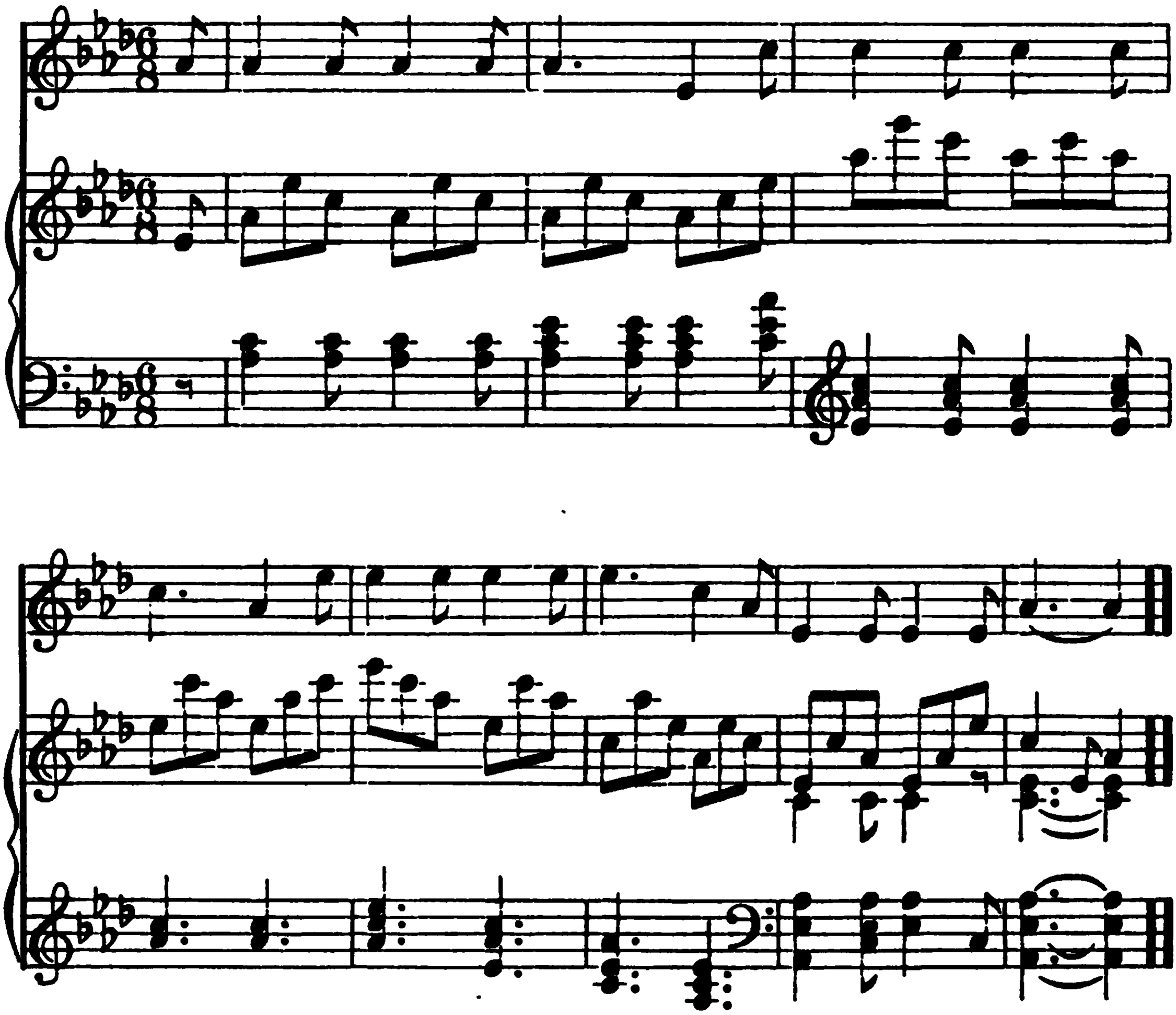
Ex. 1.

(*b.*) The same arranged for solo voice with accompaniment (tonic chord).



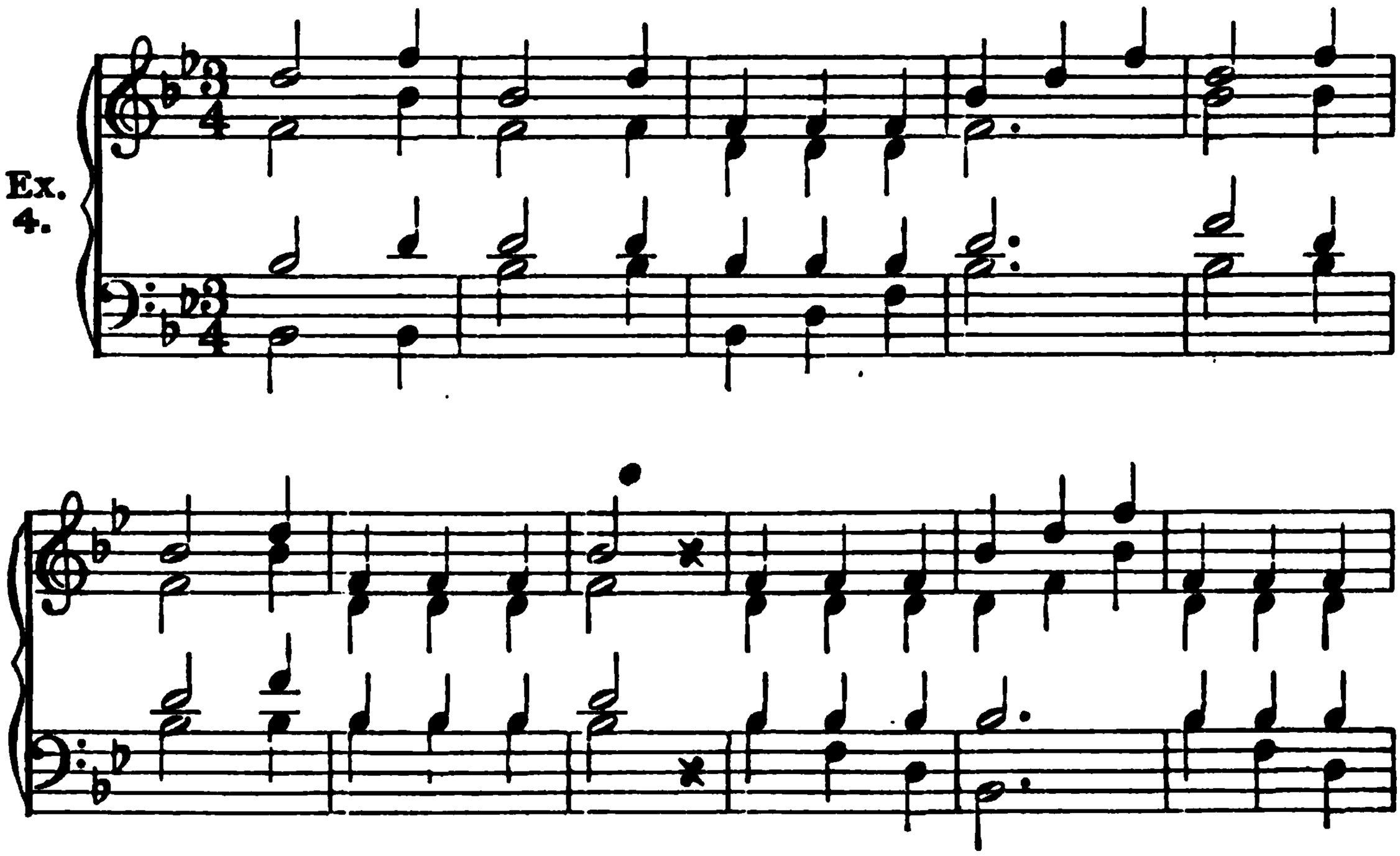
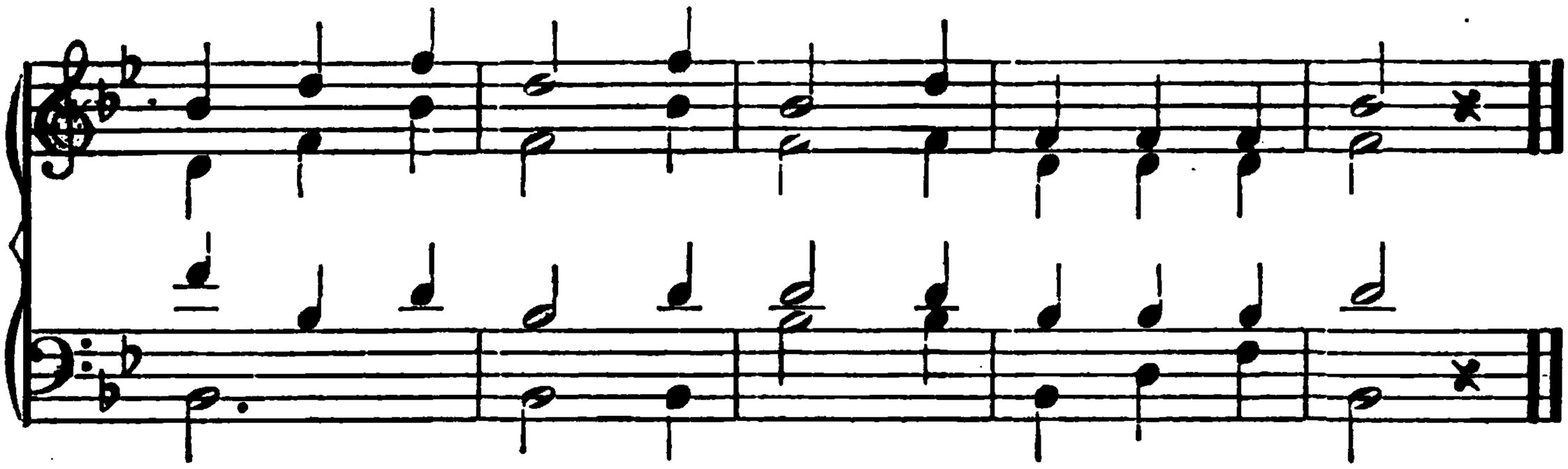
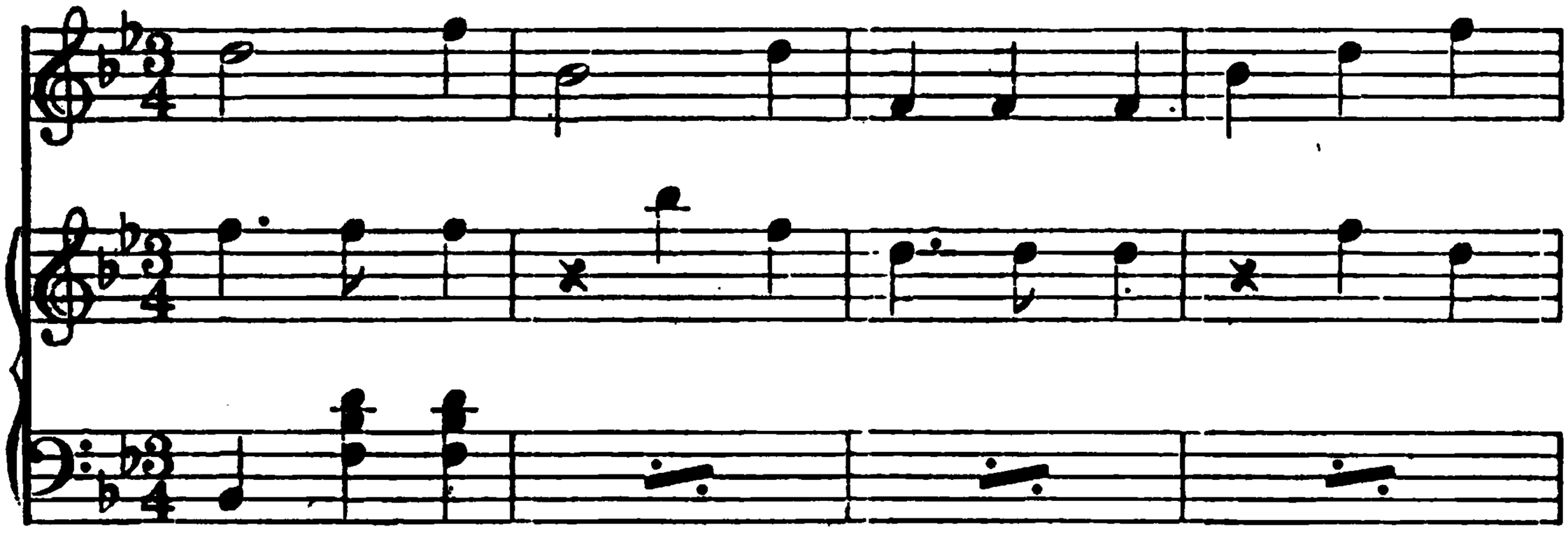
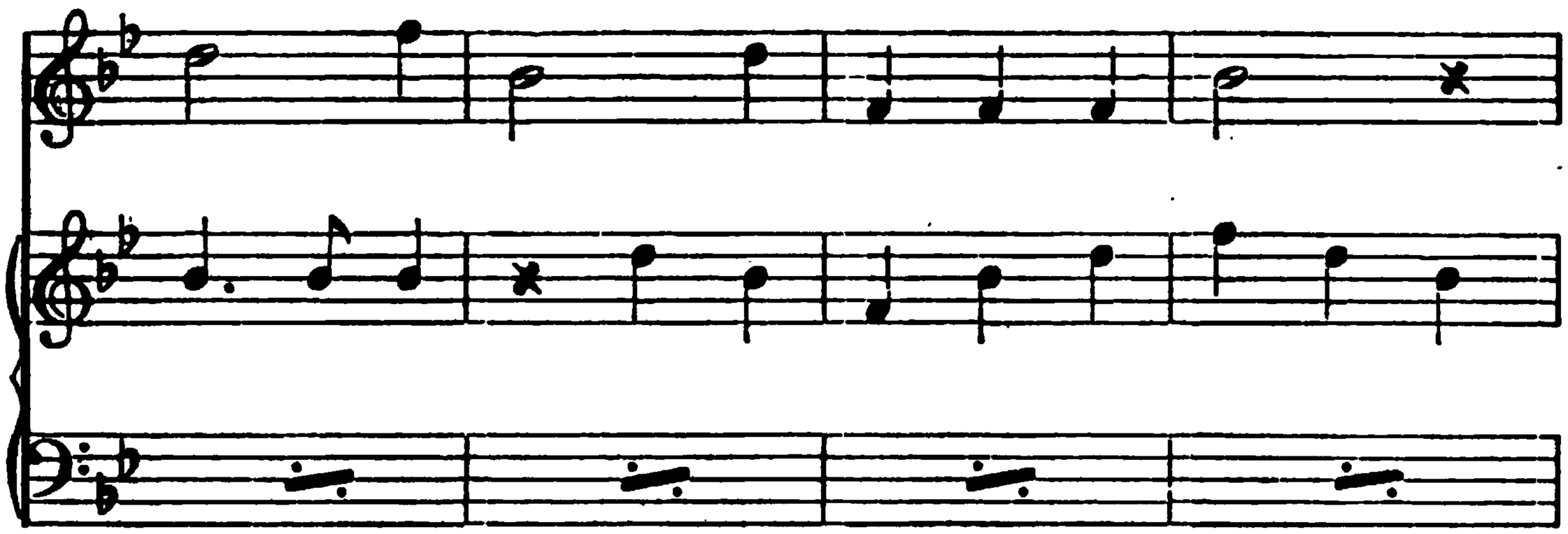
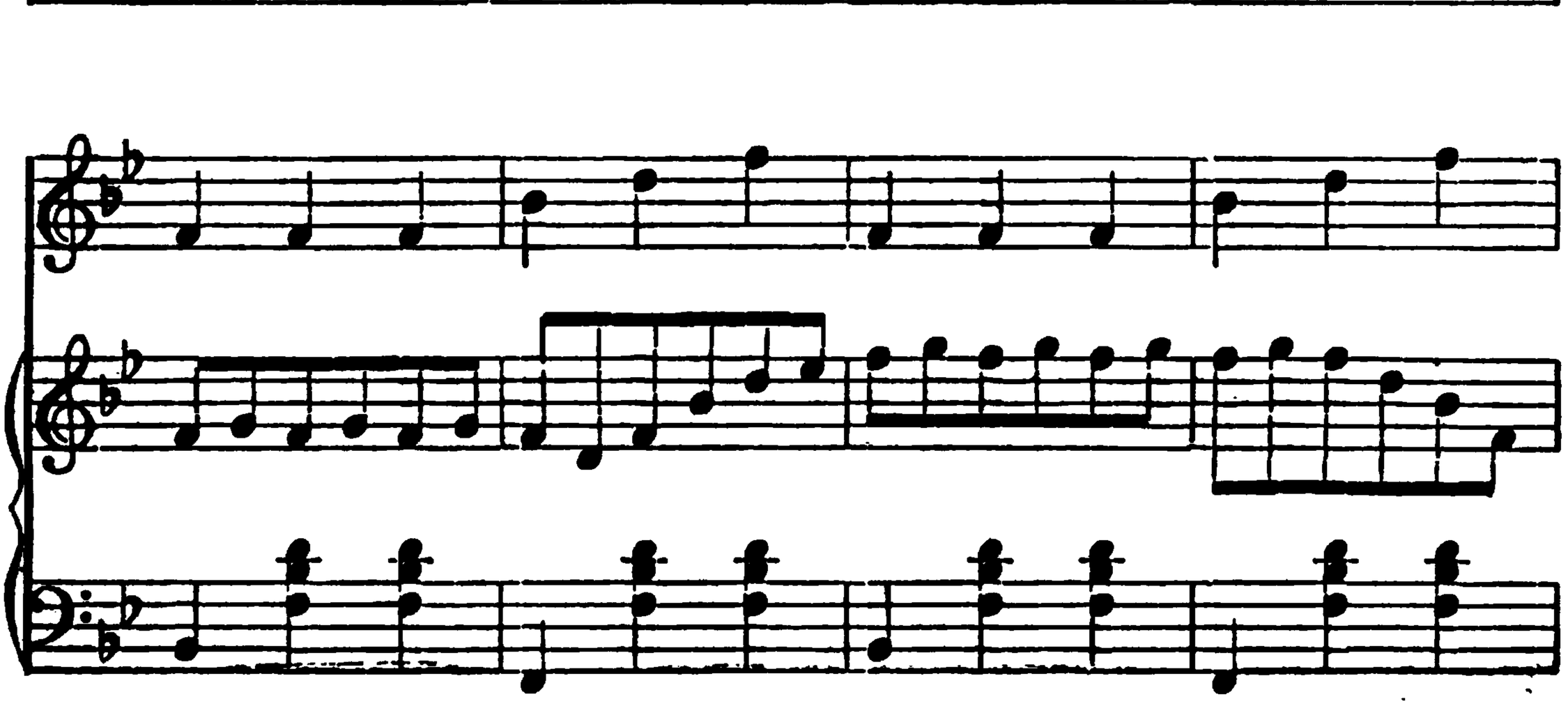
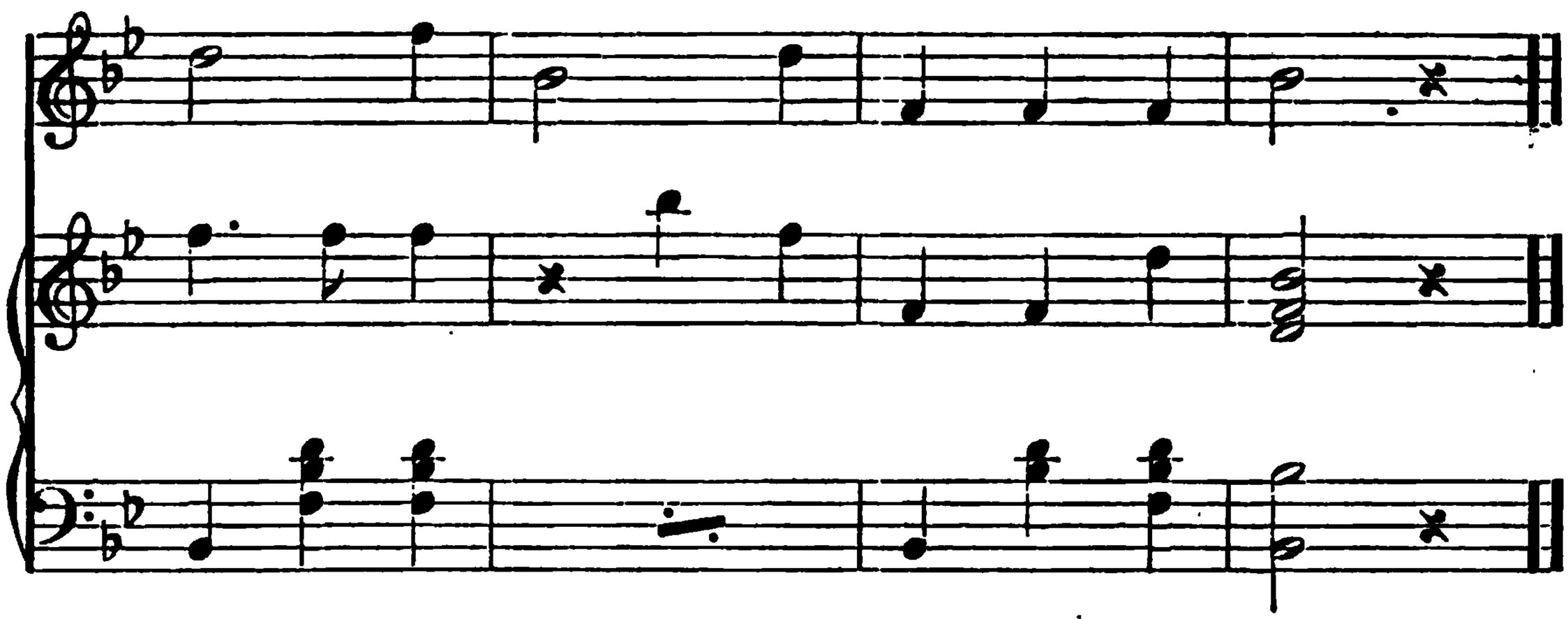
c. **The same arranged for piano solo.**

(*a.*) **Exercise 2, p. 8, harmonized for four voices.**

Ex. 2.



(*b*.) **The same arranged for solo voice and accompaniment.**

(*a*.) **Exercise 3, p. 8, harmonized for four voices.**

Ex 8.

(*b*.) **The same arranged for solo voice and accompaniment.**

(*a*.) **Exercise 4, p. 8, harmonized for four voices.**

Ex. 4.

(*b*.) **The same harmonized for solo voice with accompaniment.**

The ingeniousness with which Mr. Harrison handled this material justifies the existence of the chapter in its present form. To be sure, non-chordal tones appear in some of the versions, but these are spontaneous and their use should be encouraged even before the student has reached the chapter which explains such tones. Mr. Harrison is a professional and skilled instrumentalist and we therefore cannot expect such satisfactory results from the average student. The author, however, has obtained comparatively good results from all students with whom the method has been tried.

A second objection may be advanced that the method is not as rapid as most. This arises from the fact that most text books cover the three principal triads in the first chapter, the secondary triads in the second chapter, etc. This objection must be met by comparison. The average text book covers chord structure and progression in from fifteen to twenty-five chapters. The same material is covered by this text in fourteen chapters, each of which requires no more lessons than a chapter in other text books.

To prove the economy in time of this method, the author gave an experimental class the final examination paper set by Harvard College for the first year harmony class of 1914. The class at Harvard has approximately seventy-two hours of lectures. The author's class had thirty-five hours of lectures. In spite of the difference in the number of lecture hours, the author's class as a whole made few mistakes, considerable originality was displayed and all the work was logical.

It will be noticed that no introductory pages are devoted to the rudiments of music such as are found in most systems of harmony. The author believes that the student of composition already has or should have a thorough knowledge of rhythm, of scales (both theoretical and practitional), and of intervals and their inversions. The author's *Essentials of Music Theory* covers the preparatory ground thoroughly and

such material within the pages of a text book of composition seems out of place.

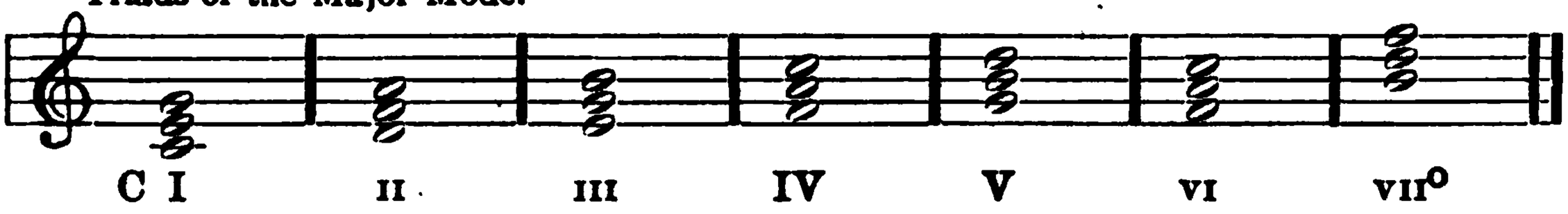
In Appendix A will be found melodies for harmonization chosen from Bach's Chorals. These are not graded and are designed to be used after the student has completed Chapter 14. In Appendix B will be found melodies chosen from the works of various composers which are to be harmonized or worked out according to directions. Appendix C contains graded bass exercises for those who desire to supplement the melodic work. Appendix D consists of a list of technical terms with definitions. A few of these terms are used in this method perhaps for the first time; in each case, the term chosen is practically self-explanatory.

INTRODUCTION.

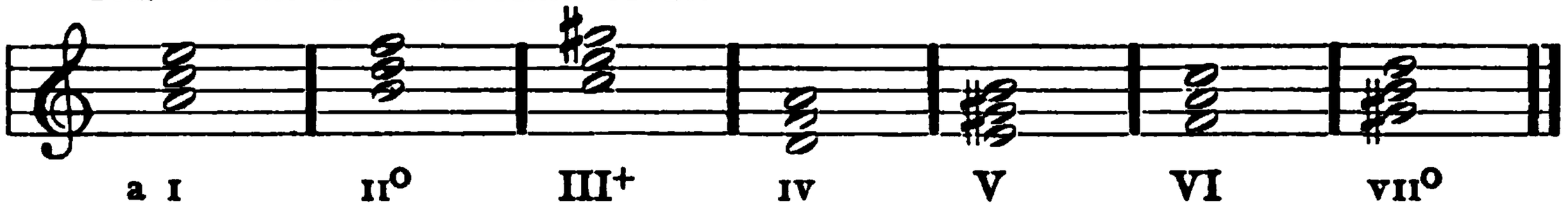
VOCABULARY OF CHORDS.

In the following vocabulary, the chords are figured. Large Roman numerals denote major triads; small Roman numerals denote minor triads. Arabic figures denote chord factors. A cipher is affixed to a small Roman numeral to denote a diminished triad. The plus sign (+) is affixed to a large Roman numeral to denote an augmented triad. The plus sign is also affixed to Arabic figures and denotes an augmented interval. In figuring the altered triads, the original numeration of the triads is retained regardless of whether or not the alteration has changed the normal formation of the triad. The student is not expected to memorize the vocabulary; it is given for reference. The arrangements of the chord factors are such as to show the "spellings" of the chords and are not necessarily the most effective factor distributions.

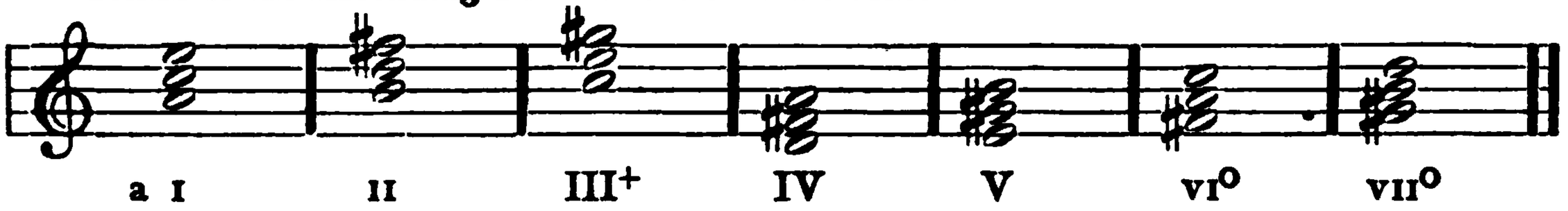
Triads of the Major Mode.



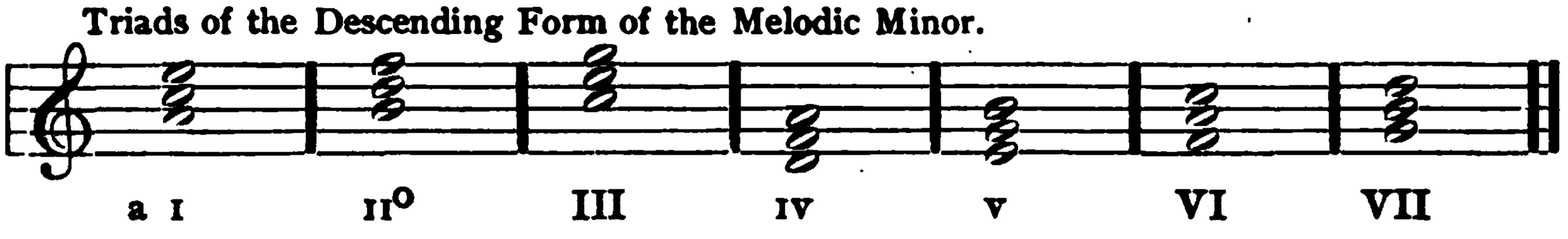
Triads of the Harmonic Minor Mode.



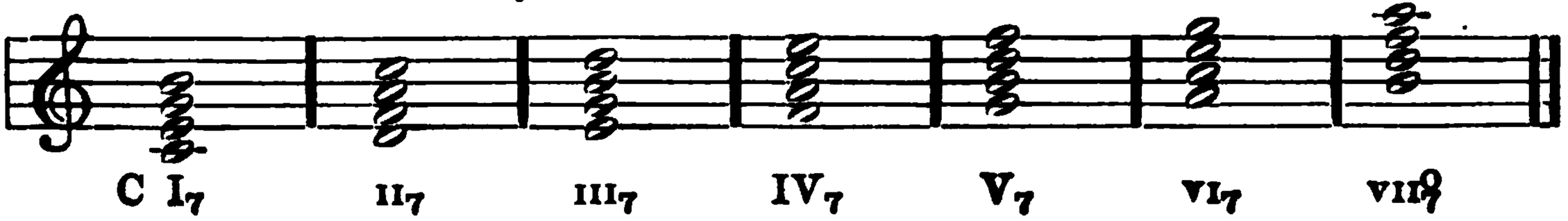
Triads of the Ascending Form of the Melodic Minor.



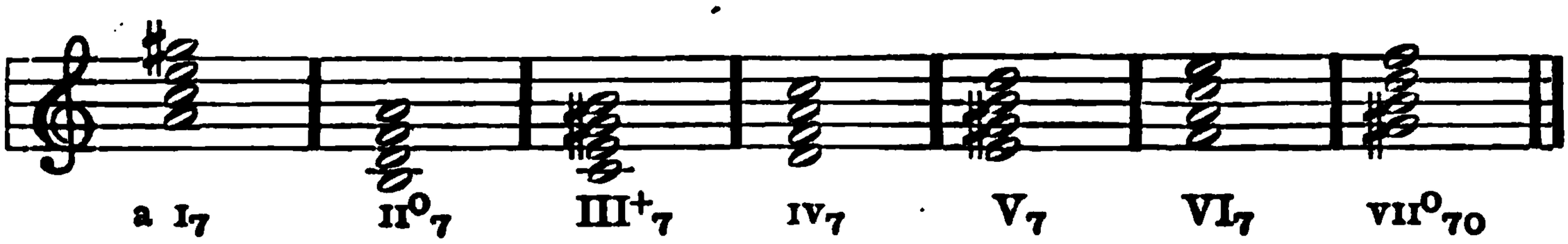
Triads of the Descending Form of the Melodic Minor.



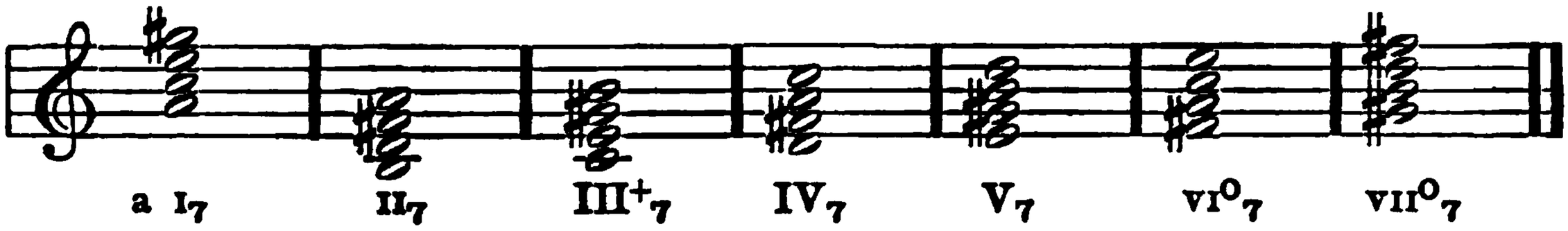
Seventh Chords of the Major Mode.



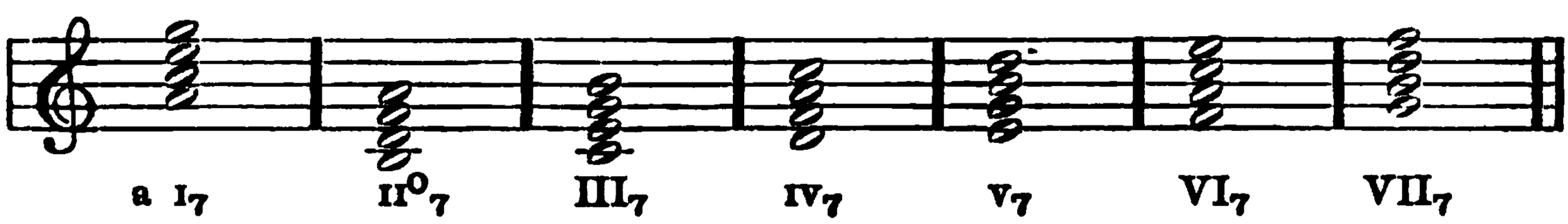
Seventh Chords of the Harmonic Minor Mode.

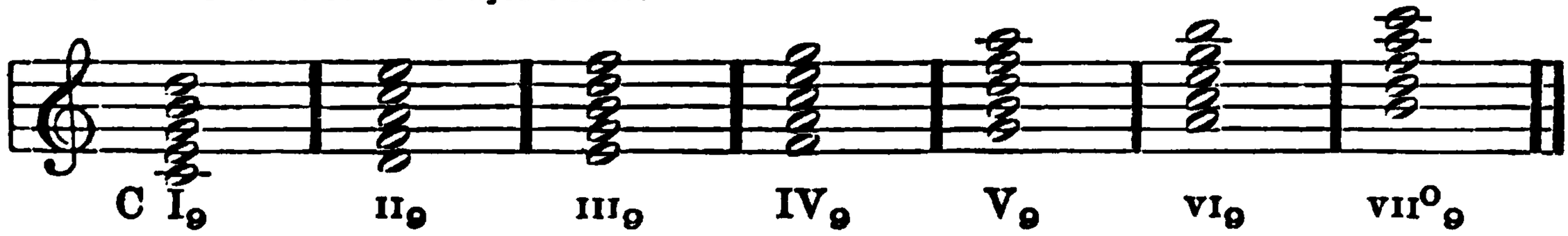
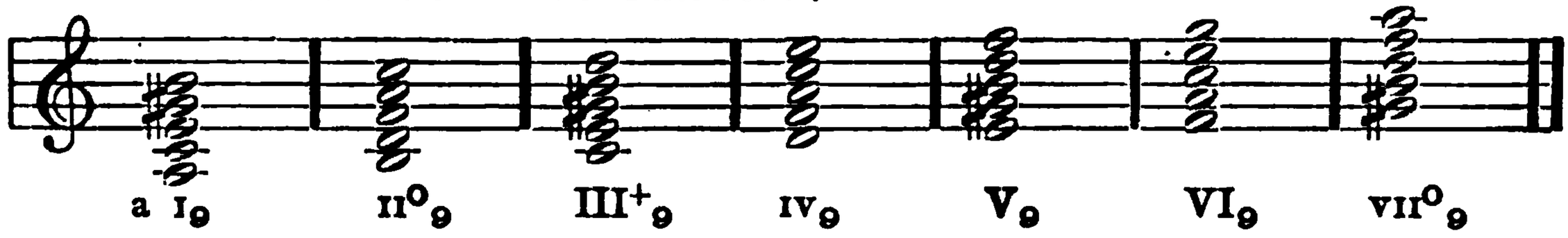


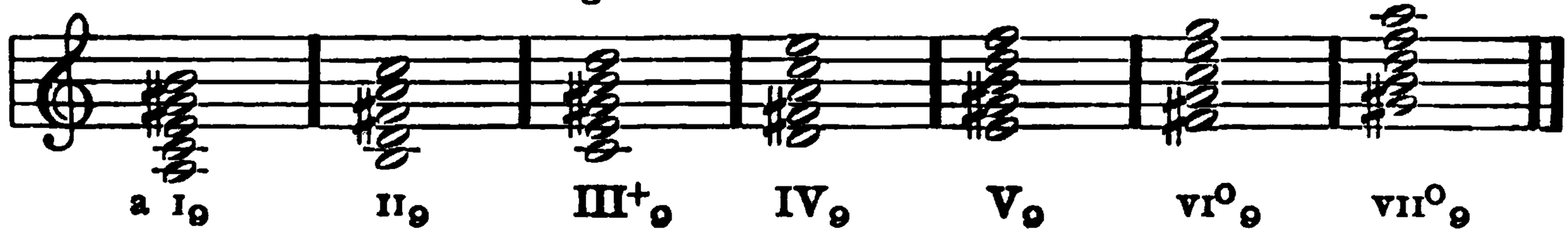
Seventh Chords of the Ascending Form of the Melodic Minor.

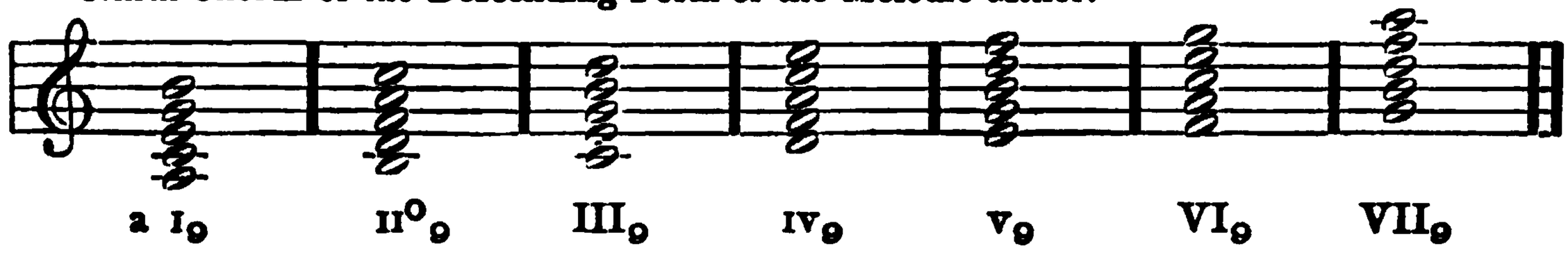


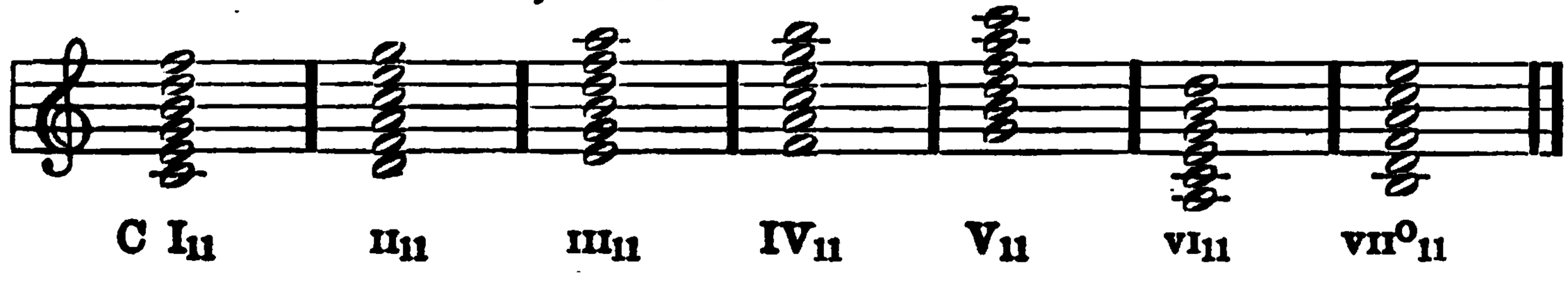
Seventh Chords of the Descending Form of the Melodic Minor.



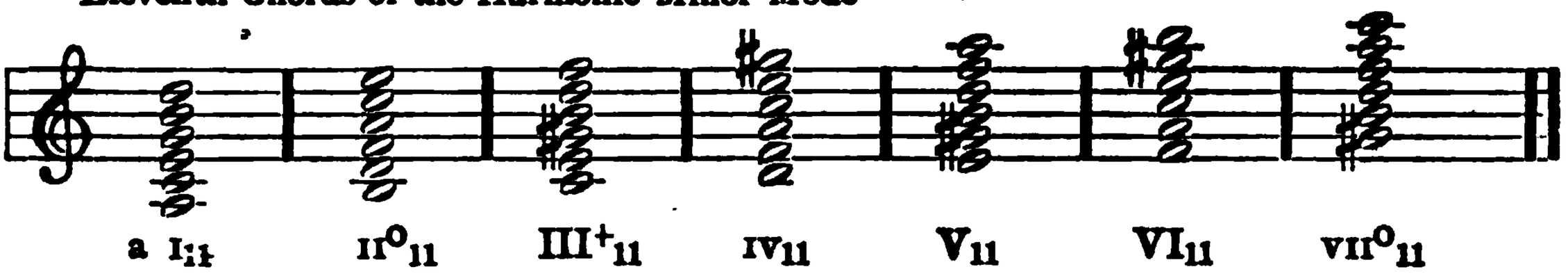
Ninth Chords of the Major Mode.

Ninth Chords of the Harmonic Minor Mode.

Ninth Chords of the Ascending Form of the Melodic Minor.



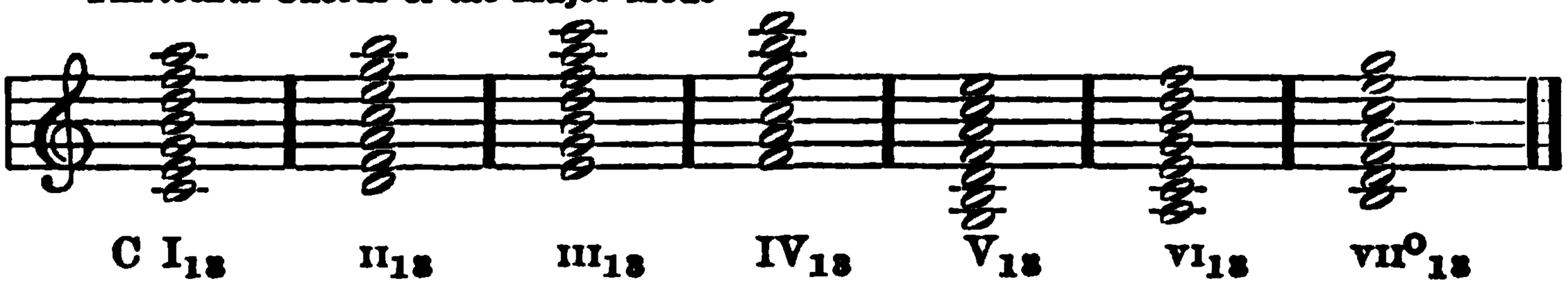
Ninth Chords of the Descending Form of the Melodic Minor.

Eleventh Chords of the Major Mode.



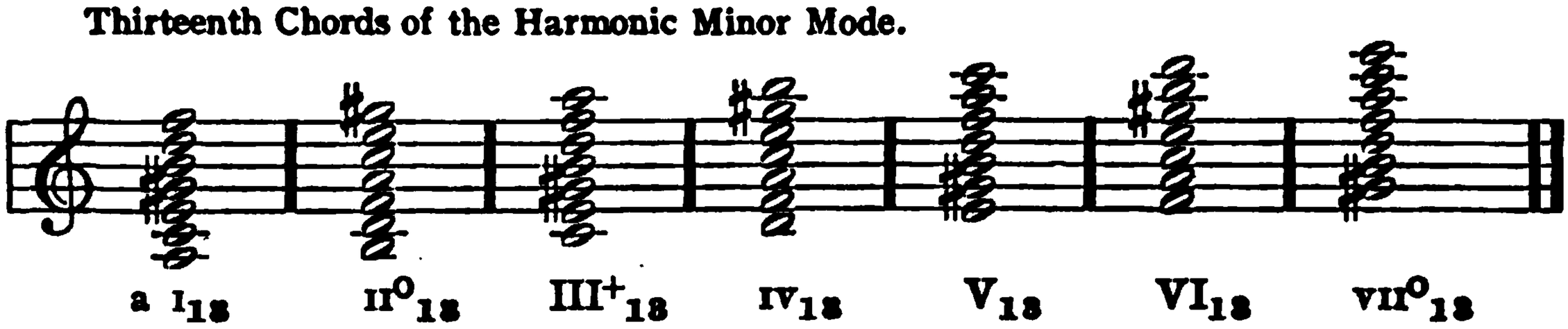
Eleventh Chords of the Harmonic Minor Mode*



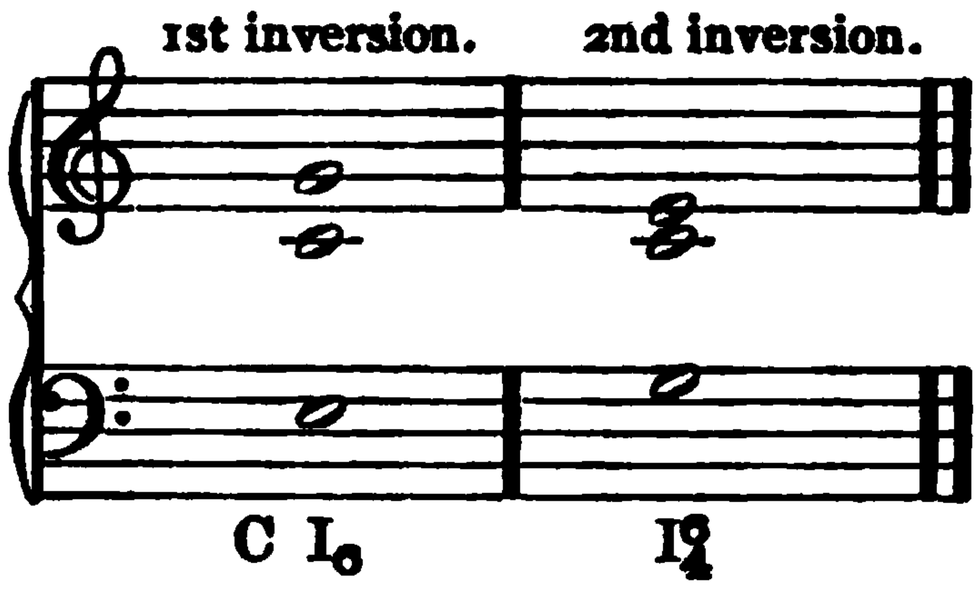
Thirteenth Chords of the Major Mode

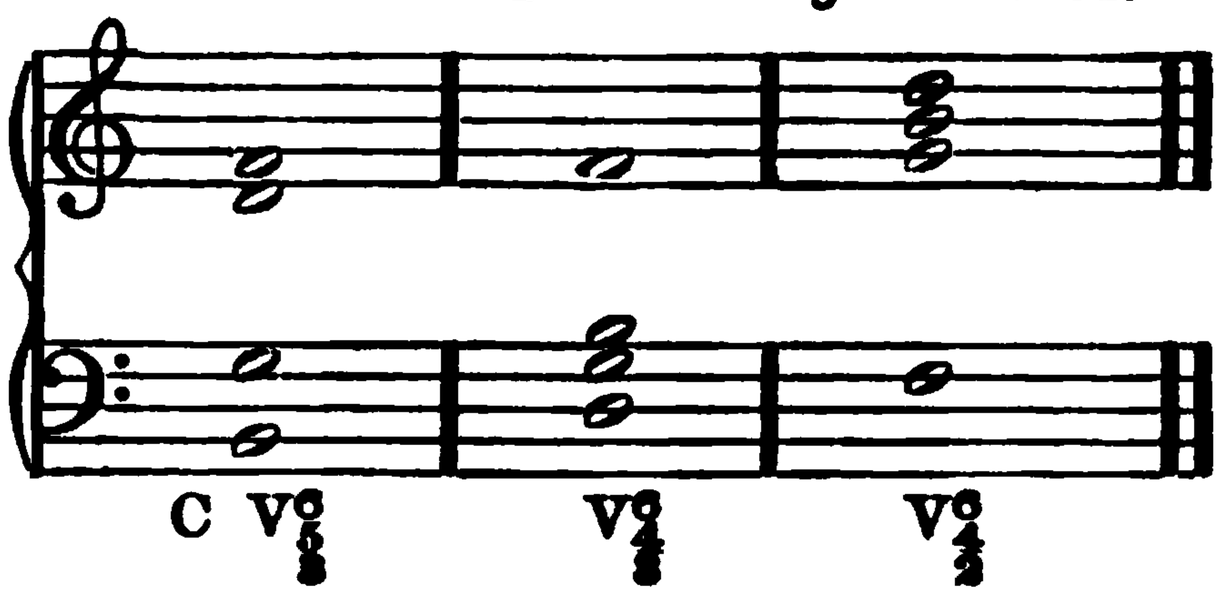
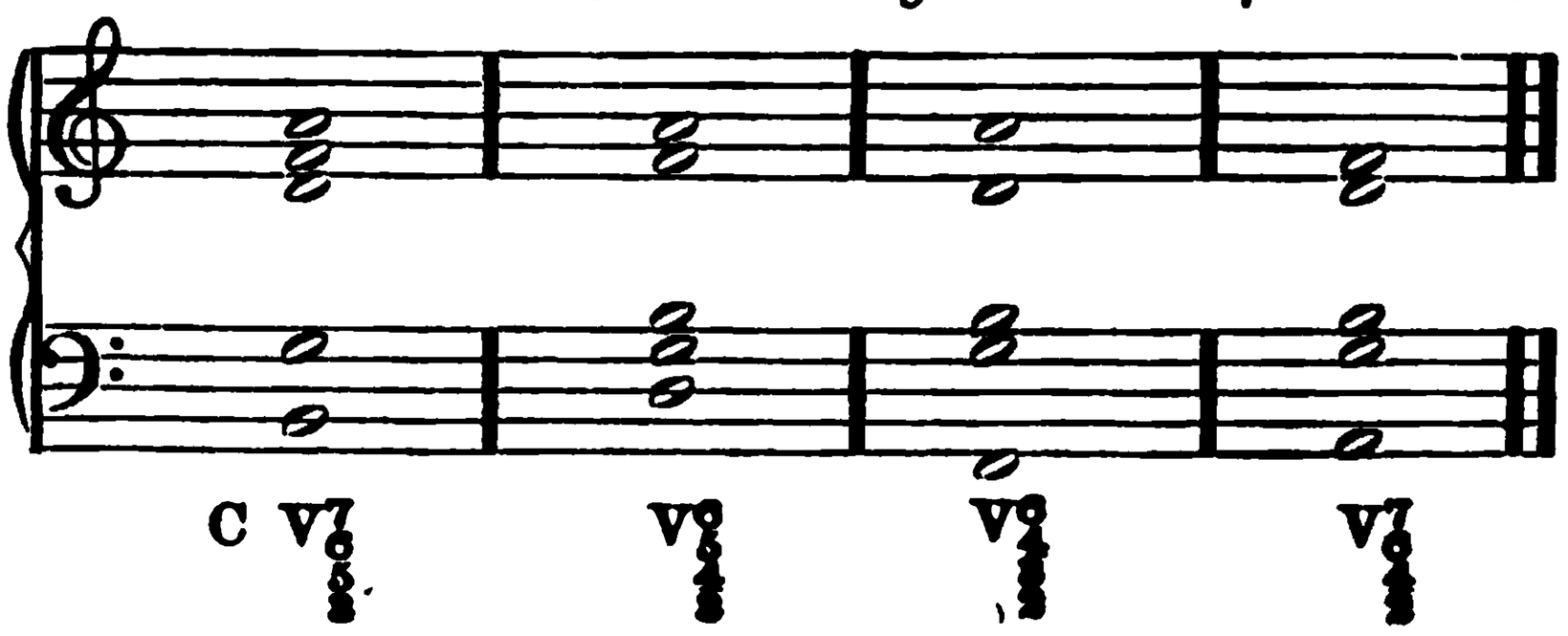


Thirteenth Chords of the Harmonic Minor Mode.

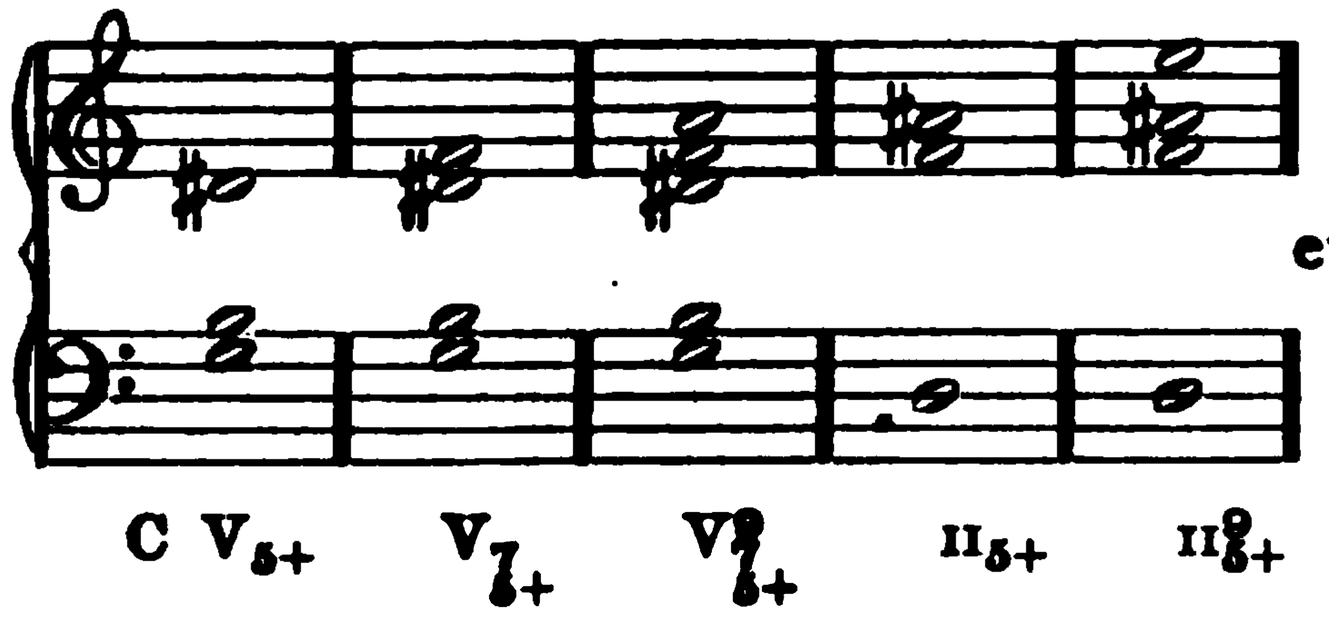


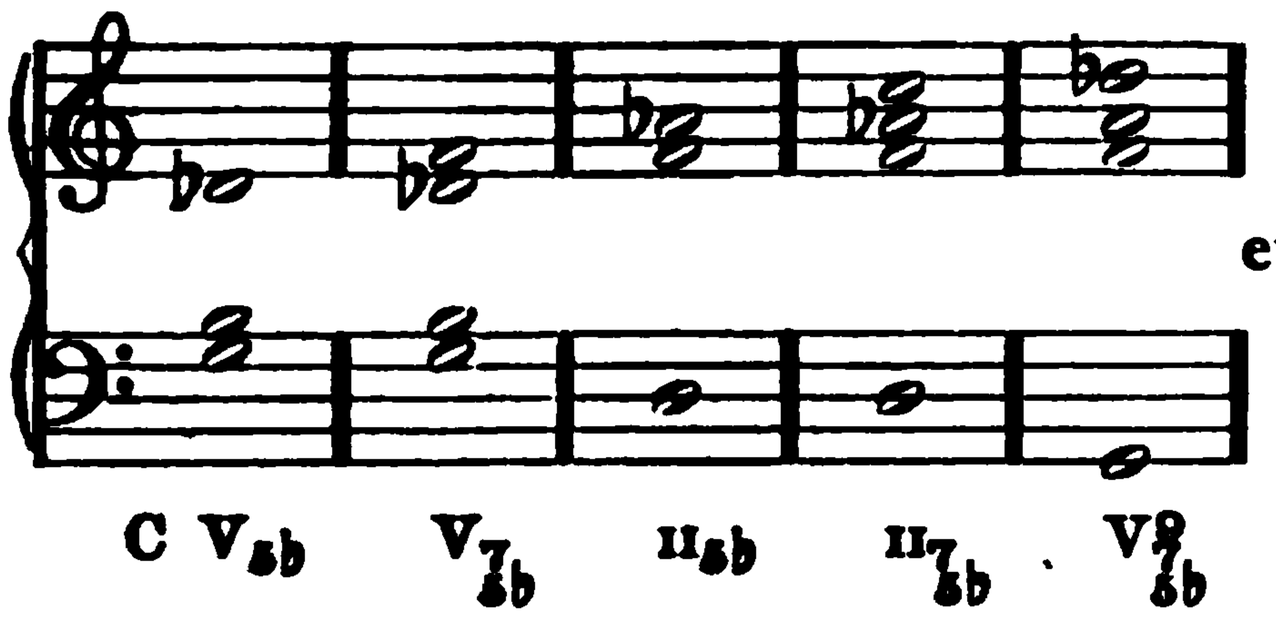
Inversions of a Triad:

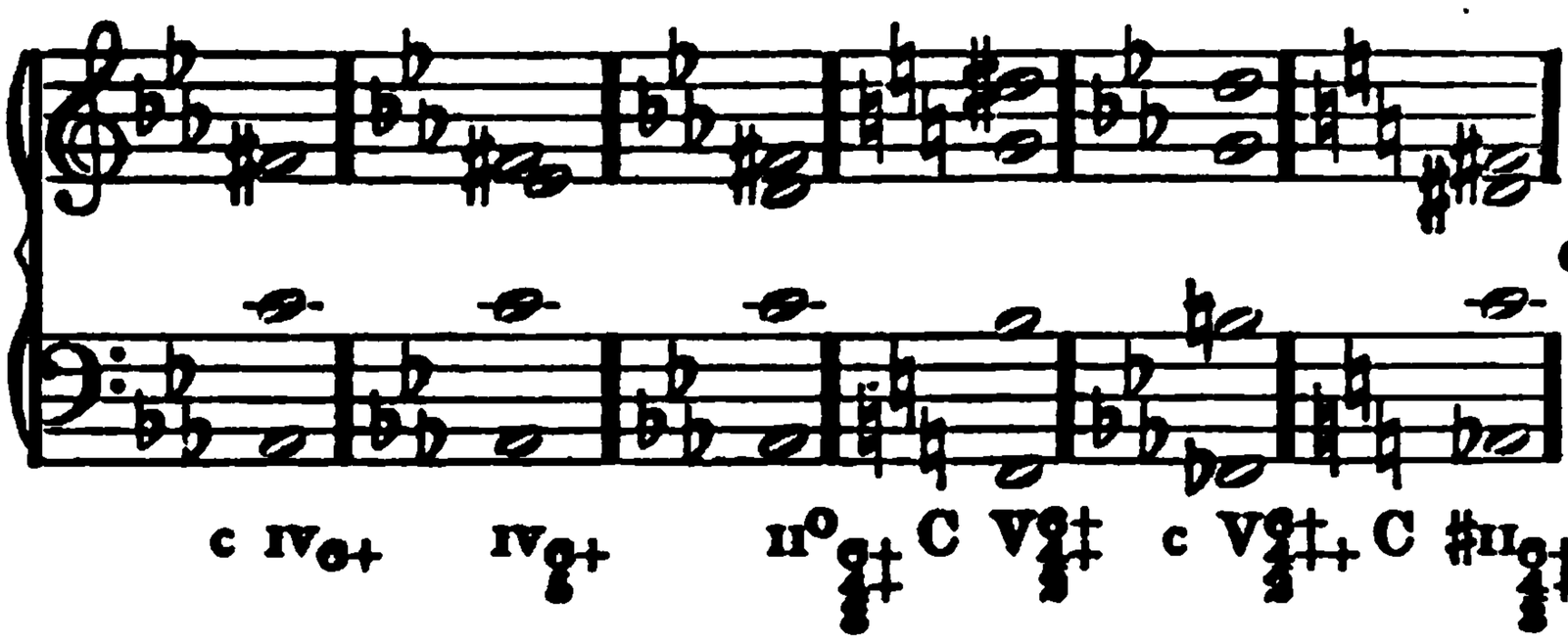


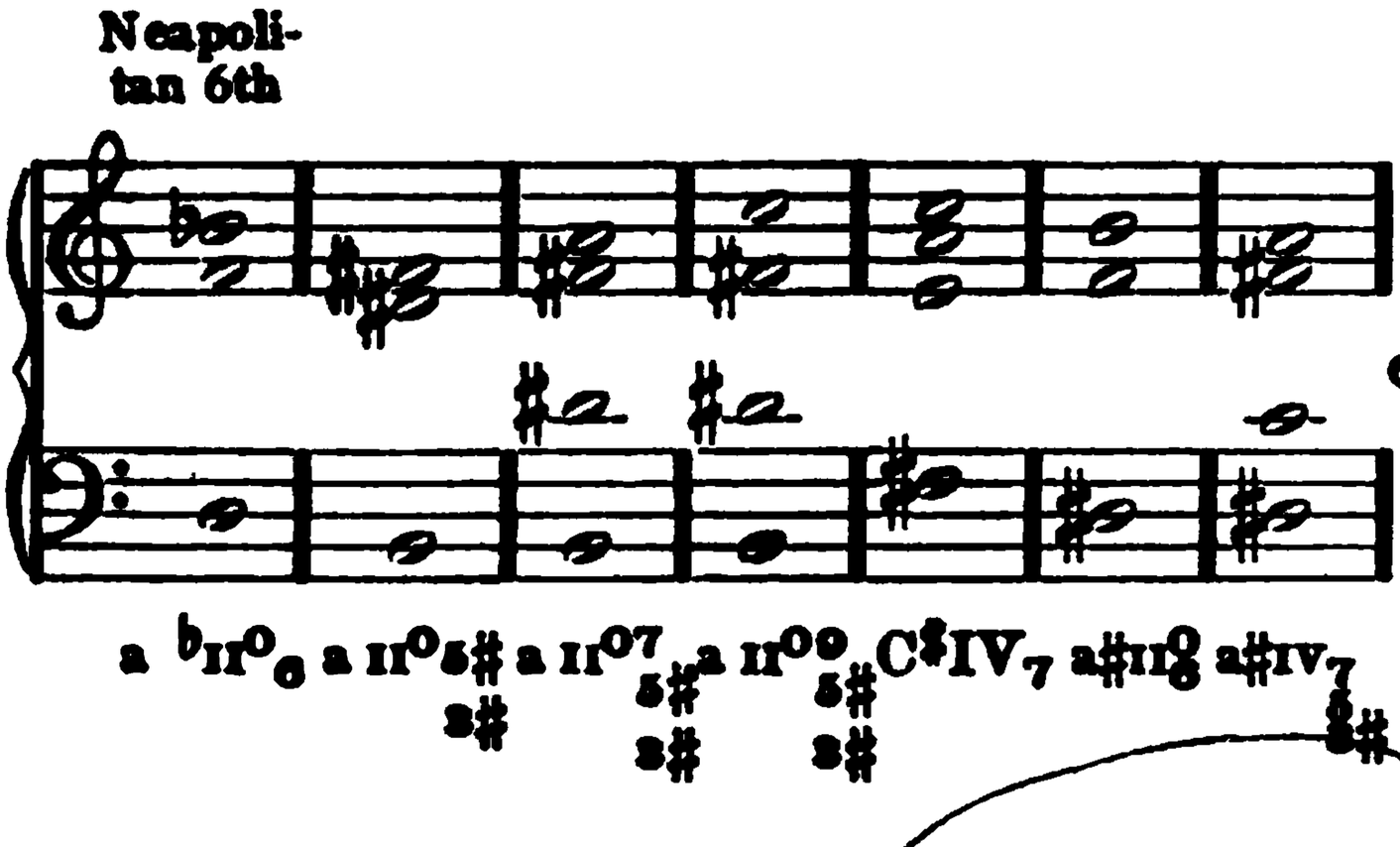
Inversions of a Seventh Chord:

Inversions of a Ninth Chord:

*The eleventh and thirteenth chords of the two forms of melodic minor are omitted.

Obviously, an isolated eleventh or thirteenth chord is ambiguous in its various inversions.

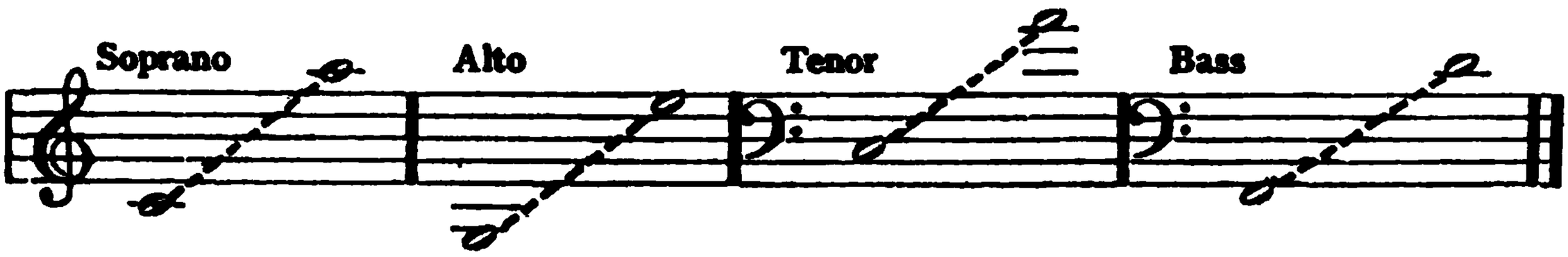
Chords with raised fifths:

etc.

Chords with lowered fifths:

etc.

Augmented Sixth Chords:

etc.

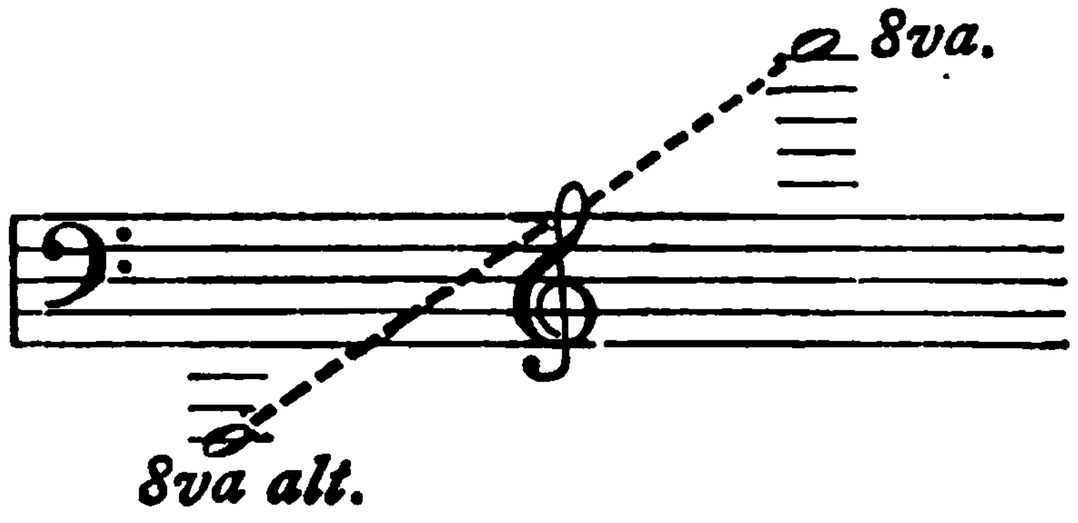
Other altered Chords:

etc.

COMPASS OF THE VOICES IN THE MIXED QUARTET.



Compass of the Voices in the String Quartet.

Compass of the Pianoforte.



MUSIC COMPOSITION.

CHAPTER I.

CADENCES AND ELEMENTARY FORM.

1. *The Authentic Cadence* (also called Final Cadence) is a progression from dominant to tonic harmony. The authentic cadence may be *perfect* or *imperfect*,* perfect when the tonic chord is arranged with its root in both outer voices, and imperfect when the uppermost voice sounds factor 3 or 5 in the tonic chord. The authentic cadence when preceded by subdominant harmony is called complete cadence. The effective use of the authentic cadence is at the end of a period.

2. *The Half Cadence* is a progression from tonic or subdominant harmony to dominant harmony. Its effective use is at the end of any phrase other than the last phrase of a period.

3. *The Deceptive Cadence* (also called False Cadence and Avoided Cadence†) is a progression from dominant harmony to some chord other than I, usually VI and occasionally IV preferably in first inversion. Its effective use is at the end of a phrase other than the last phrase of a period. It is effectively used also to extend the normal length of a period.

4. *The Plagal Cadence* (also called Church Cadence, Ecclesiastical Cadence, and Amen Cadence) is a progression of the subdominant chord to the tonic chord. This cadence is effective after the final cadence in ecclesiastical music.

Elementary Form.

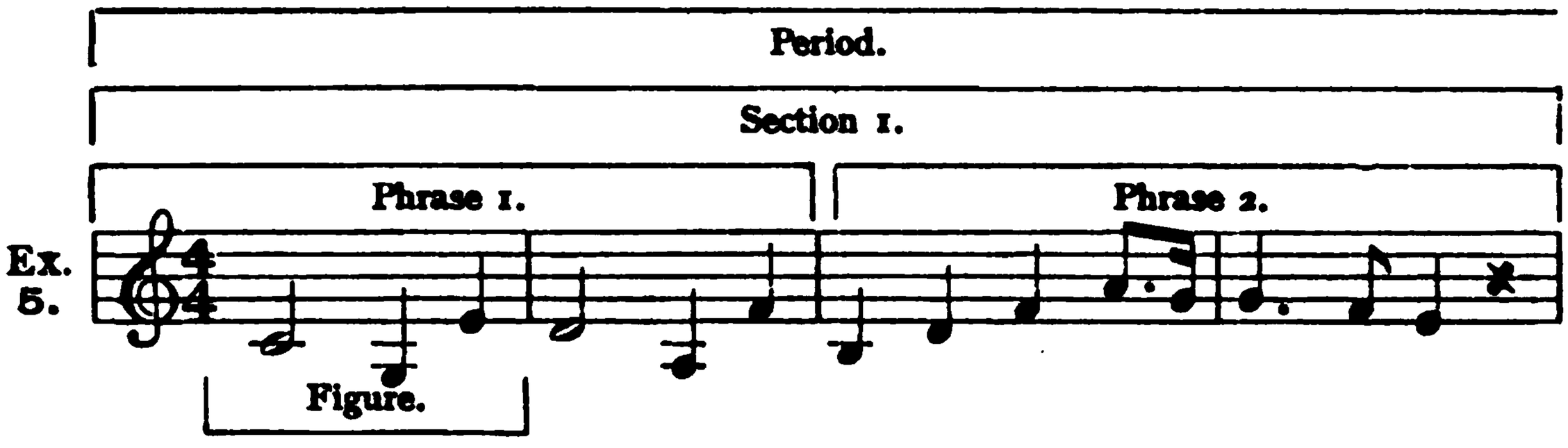
A complete musical sentence is called a *period* and usually consists of eight long measures or sixteen short measures.

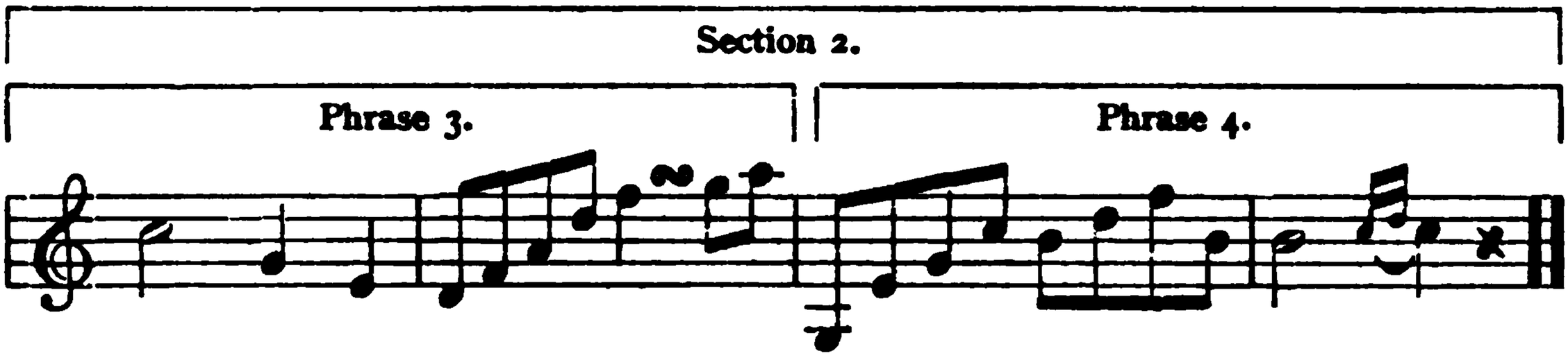
Periods are divided more or less arbitrarily into sections, phrases and figures. The construction of a typical figure follows:

*Some theorists call a half cadence an imperfect cadence.

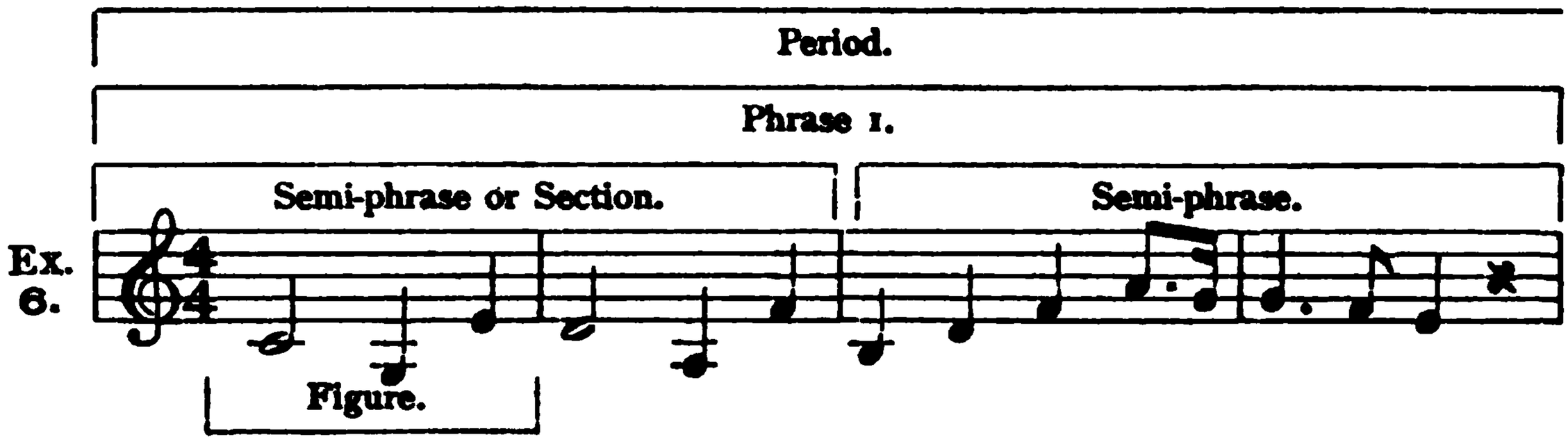
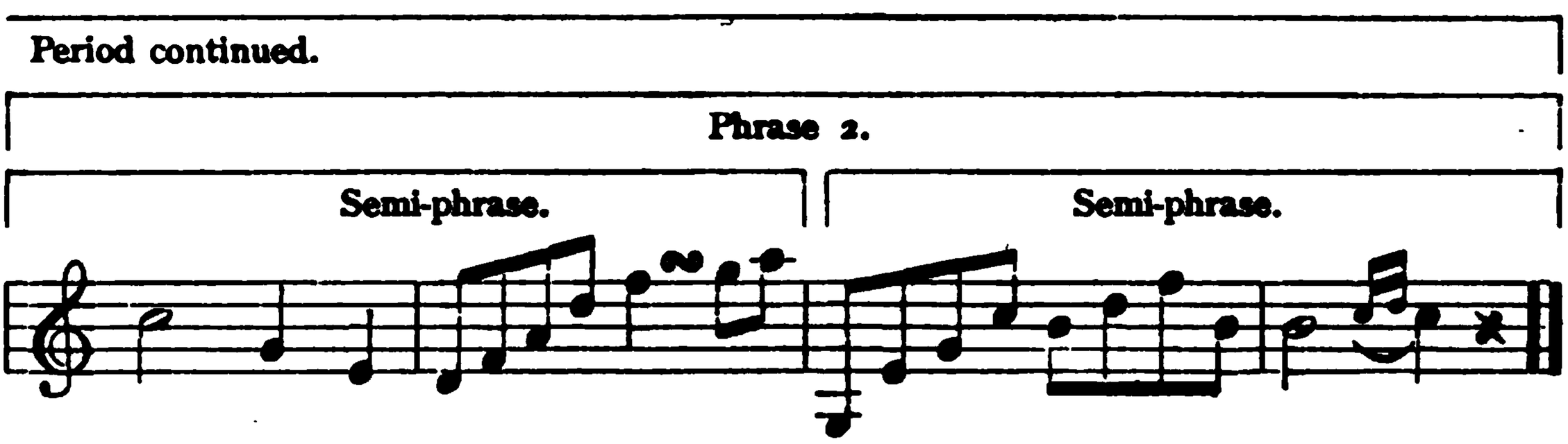
†Some theorists make a distinction between Deceptive Cadence and Avoided Cadence, but this need not be considered here.

Andante by MAZAS.





The following division of a period is sometimes chosen by theorists:



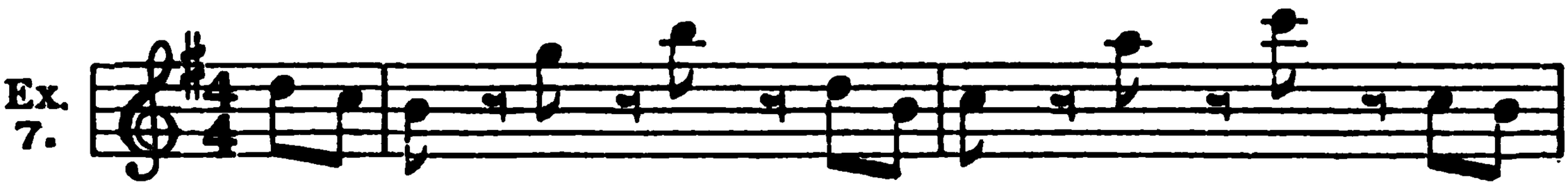
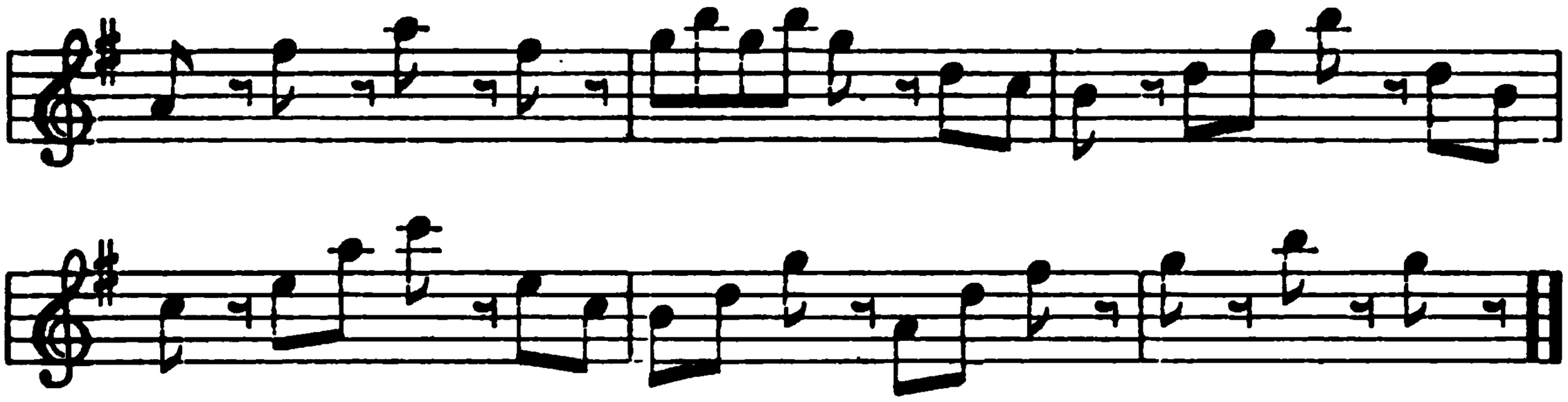
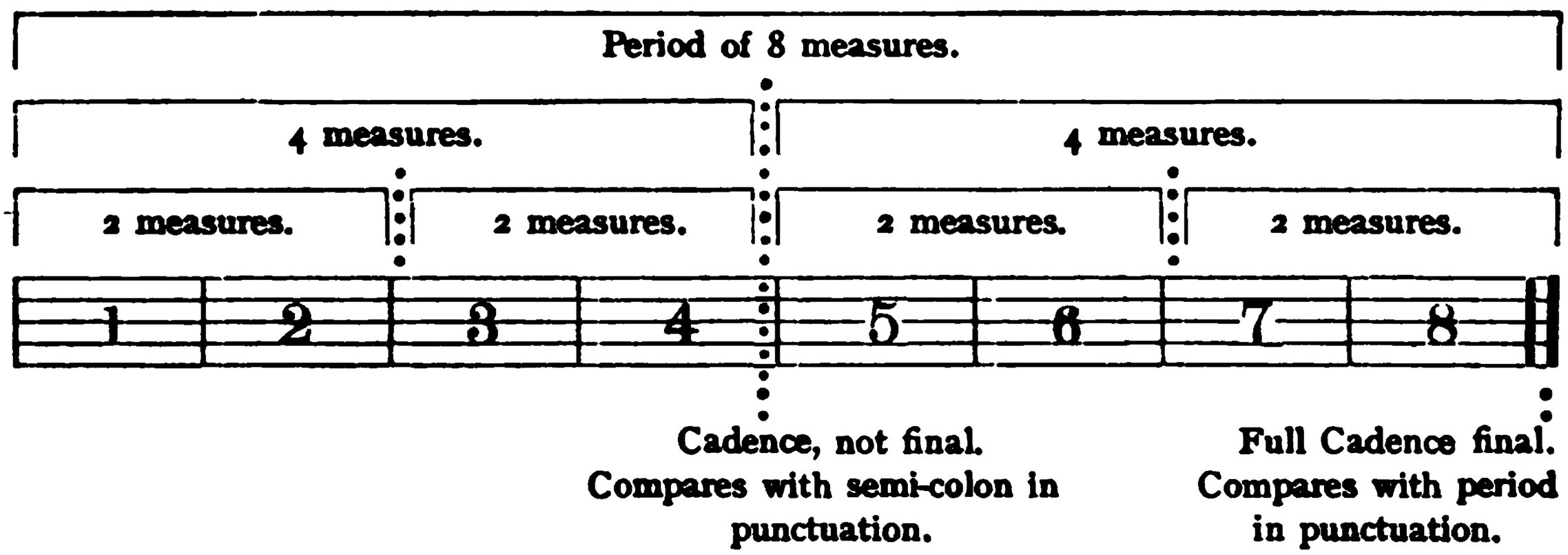
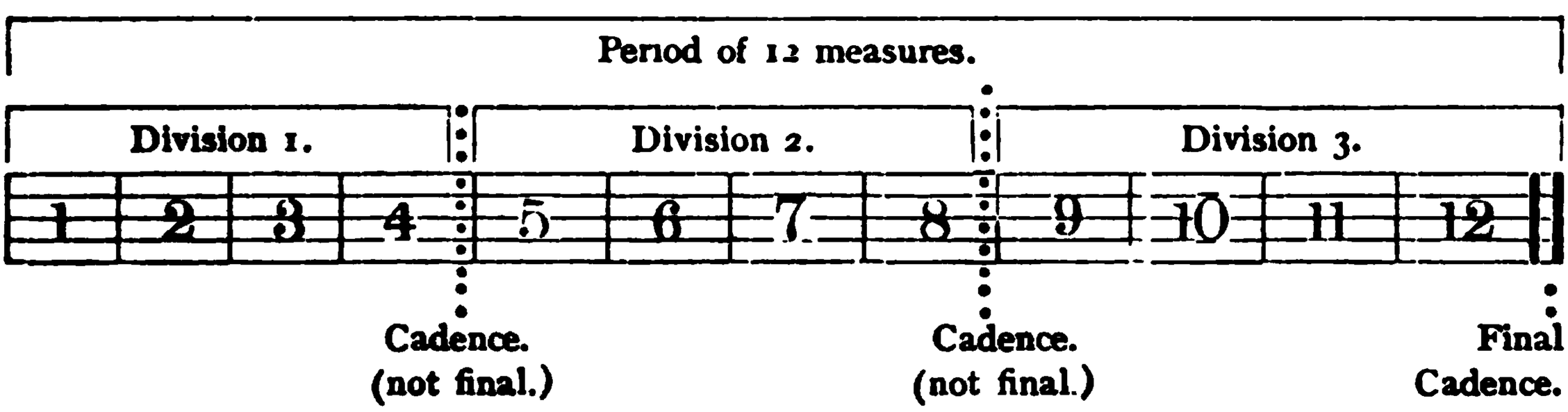
A period may commence upon a fractional part of a measure. The fractional part of the measure required for the commencement of a period is deducted from the last measure of the period.

The divisions of such simple and typical periods as are shown in the preceding examples are marked by either or all of the following devices: cadence, rhythmic grouping, and melodic line. Where the smaller divisions are well marked the composition is fragmentary and therefore primitive. To avoid a fragmentary effect, the smaller divisions should coalesce to some extent in the harmonization and but one well marked cadence, other than the final cadence, should appear. The following diagram demonstrates:

Diagram 1.



A period constructed as follows is not uncommon:

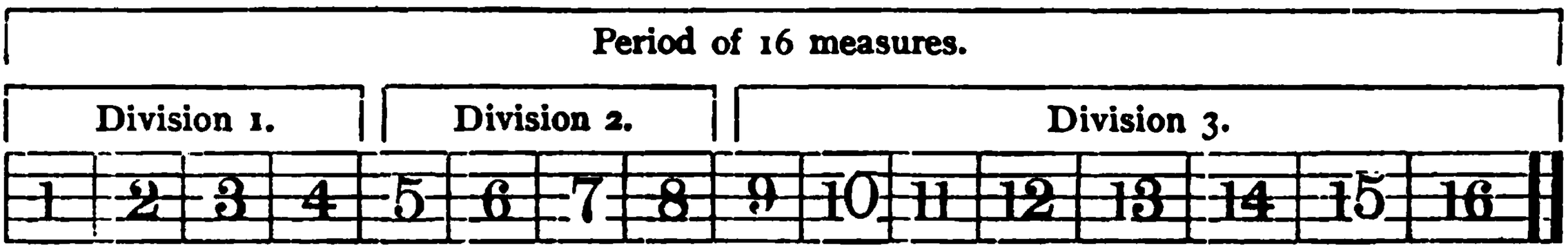
Diagram 2.



A period in the Minuet of Sonata I by Beethoven shows the above structure but to this twelve-measure period is added two measures by repeating the final cadence. Such a device is called *Extended Cadence.*

The Scherzo from Beethoven's Sonata III shows a sixteen-measure period constructed as follows:

Diagram 3.



The third division shows a perfect coalescence of two four-measure groups.

Such structures as have been considered above may be varied by the devices of expansion, interpolation and contraction. For an example of expansion, see Beethoven's Sonata, Op. 10, No. 1. For an example of interpolation, see Beethoven's Sonata, Op. 10, No. 3. For an example of contraction see Liszt's Hungarian Rhapsodies.

Like poetry, the divisions of a simple musical period are balanced one against another and the first division is called *antecedent* and the following division *consequent*. These terms may be applied to two balancing small divisions, to two balancing large divisions and even to two balancing periods. The use of these terms in this sense must not be confused with their use in the structure of the fugue.

Exercises.

The teacher should play several periods of simple construction and require the student to point out the phrases, distinguish between well marked and less marked divisions, and recognize various cadences. The student should also be required to make diagrams of the construction of various simple periods.

CHAPTER II.

THE TONIC TRIAD.

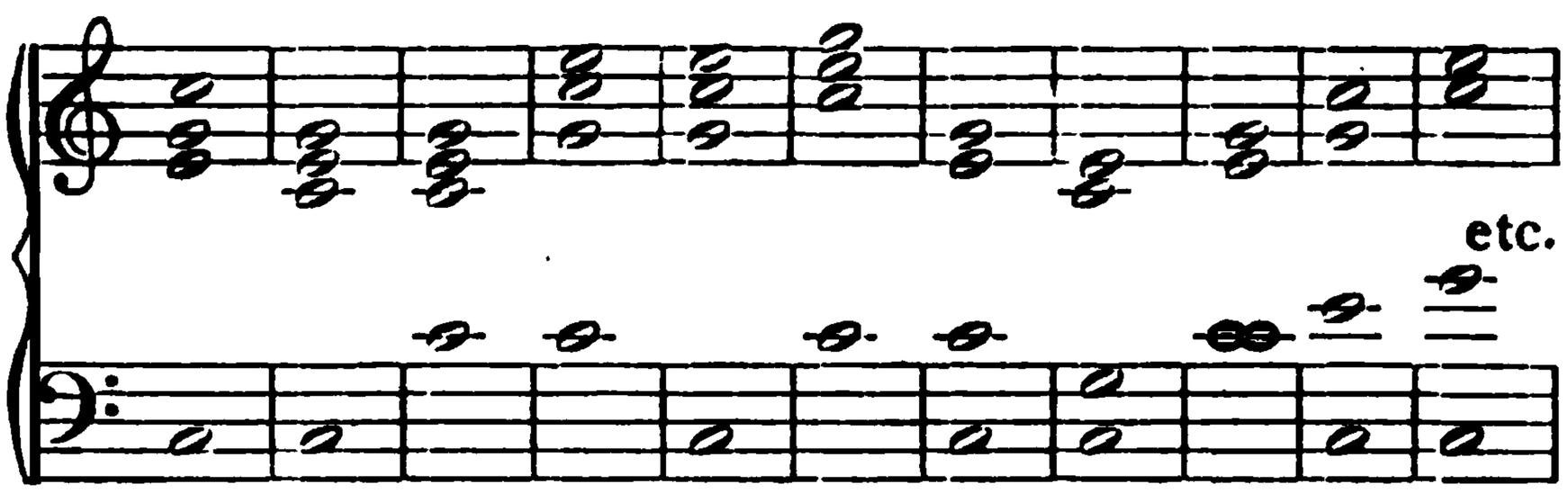
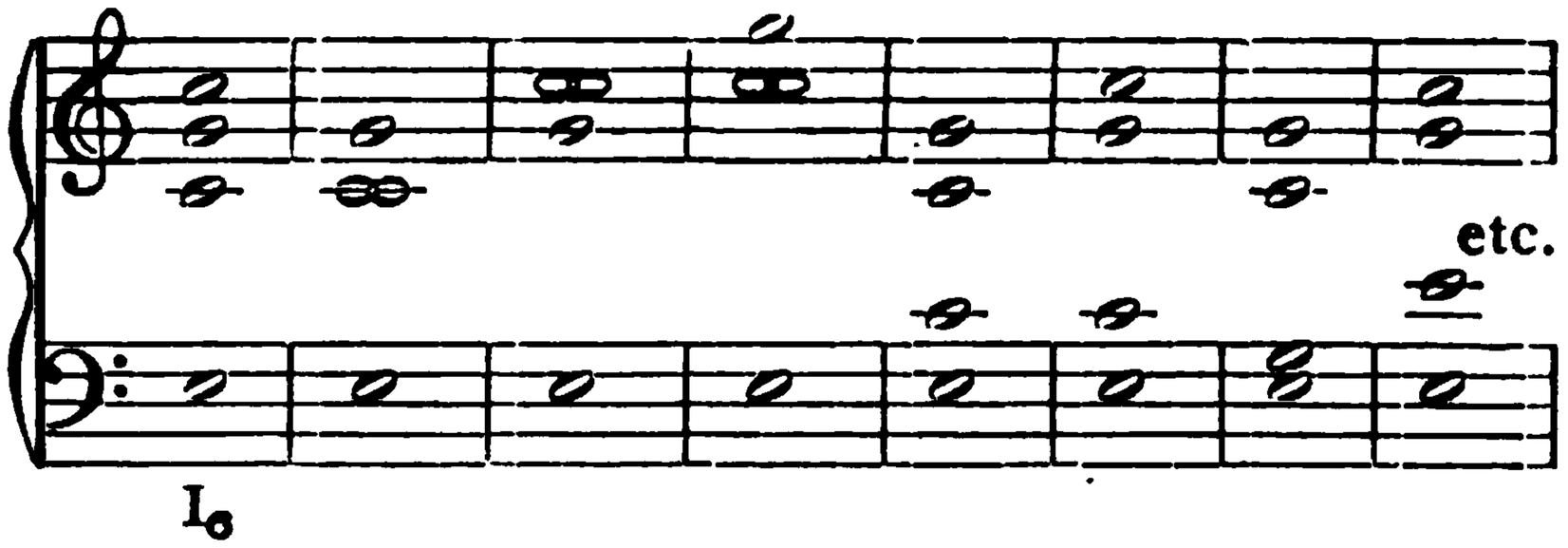
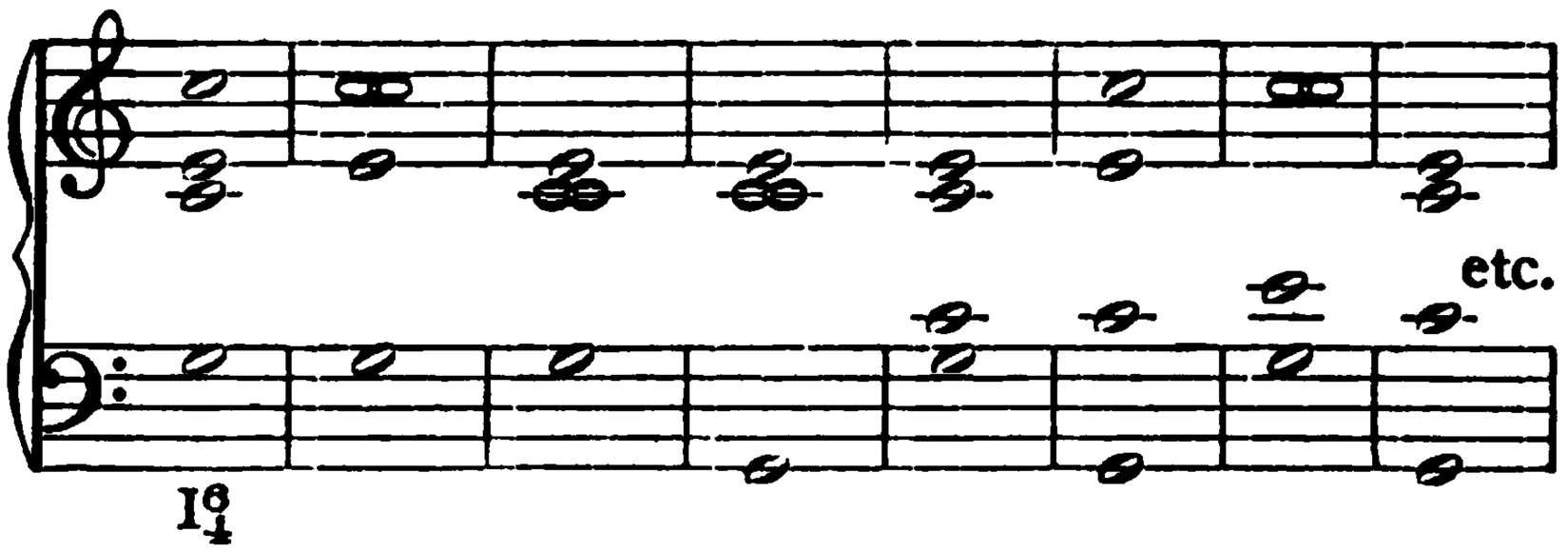
The tonic triad in the major mode consists of the tonic (*do*), its major third (*mi*), and its perfect fifth (*so*). It is called a *major triad*. The chord is consonant and inactive in effect. Its root has finality; its third and fifth have less finality but are wholly inactive in this relationship.

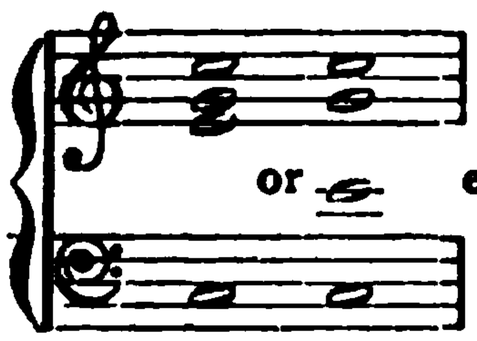
In writing triads for four voices, it is necessary to double one of the tones of the triad; i.e., one of the tones must be sounded by two voices.

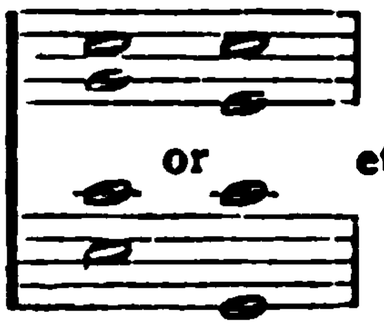
The factor of the chord most frequently doubled is the root, but, with certain restrictions, the other factors may be doubled. Factor five may be omitted in major and minor chords. In this case, the triad appears with either tripled root, or doubled root and doubled third.

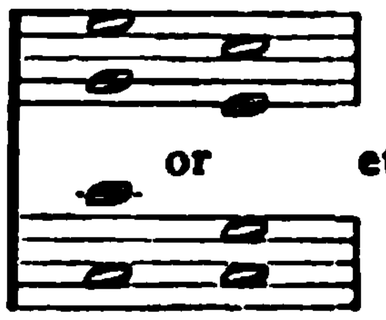
Voice spacing materially affects the musical result, and to avoid subtleties, it is advisable for the beginner to use close position;* i.e., an arrangement of voices in which the three upper voices do not exceed the compass of an octave. Such an arrangement always results in good spacing because of the well established fact that the two adjacent voices which can best be separated by the largest interval are tenor and bass.

Various ways of writing the tonic triad in close position for four voices with doubled root follow:

Root position:

First inversion:

Second inversion:

* Some writers apply the following terms to the following arrangements:

Close:  etc.

Half-open:  etc.

Open:  etc.

In this text the term "close position" includes half-open position.

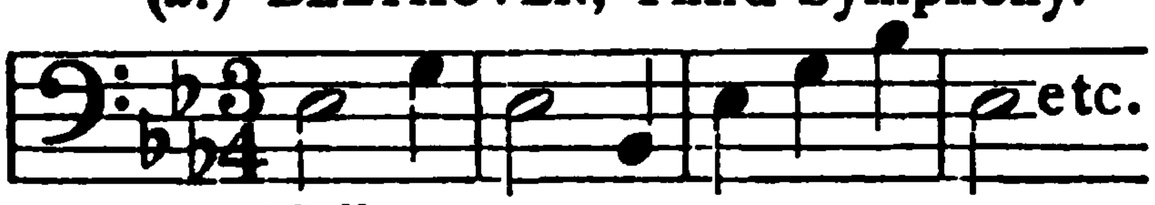
Some of the above arrangements sound thin. The student's ear will readily show the more desirable arrangements. Although the above arrangements of the six-four chord have doubled root, the chord is more effective with doubled fifth.

From a melodic standpoint, the two outer voices are the most important. "Grammatical" errors, such as consecutive and concealed fifths and octaves, are more prominent in outer voices than in inner voices.

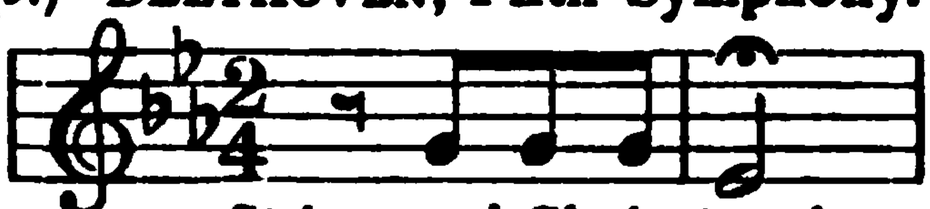
Our first consideration is a good soprano to which should be added a good bass. As we proceed, logical harmonic progressions and connections must be made. The method pursued by this text of treating each chord separately, of correlating the chords and placing them in their proper "families" will assist the student in these fundamental considerations of progressions and connections. Voices should not cross. Although crossing of voices is present in the works of great composers, this device should not be resorted to until experience in part writing has been gained.

A vocabulary of but a single chord gives very little material with which to work, but much more can be done with this material than at first might be supposed. Motives consisting of various melodic arrangements of the tones of the tonic chord may be found in the following quotations:

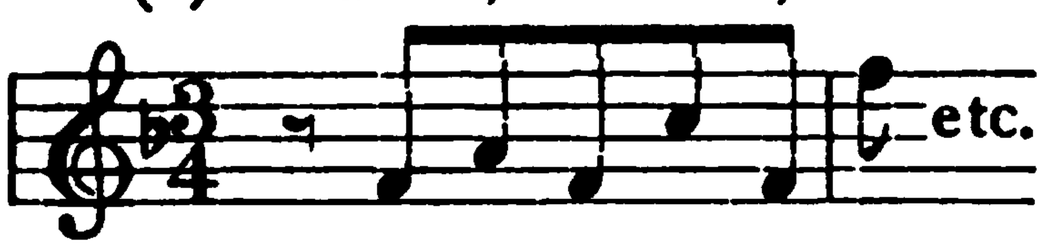
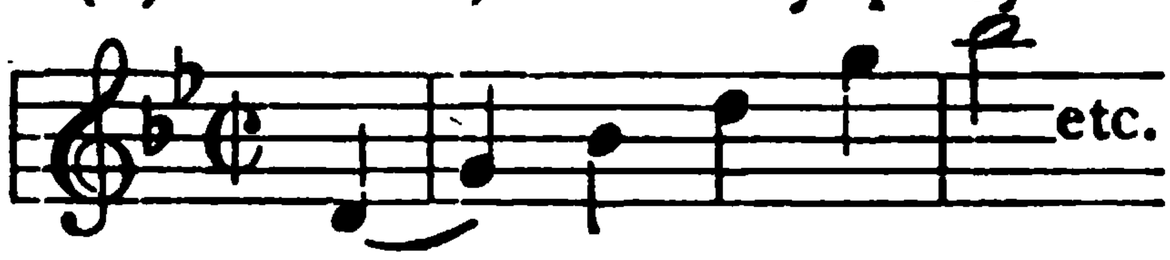
Ex. 8.

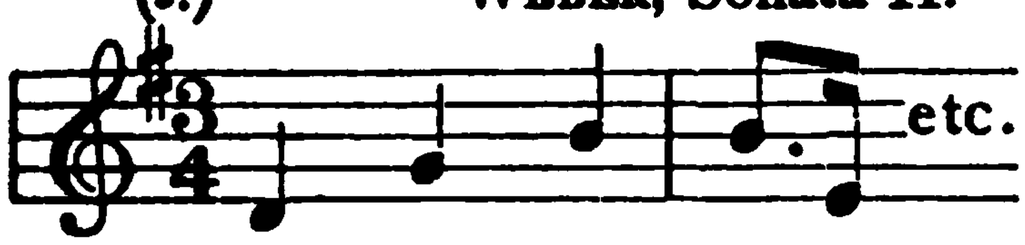
(*a.*) BEETHOVEN, Third Symphony.

'Cello.

(*b.*) BEETHOVEN, Fifth Symphony.

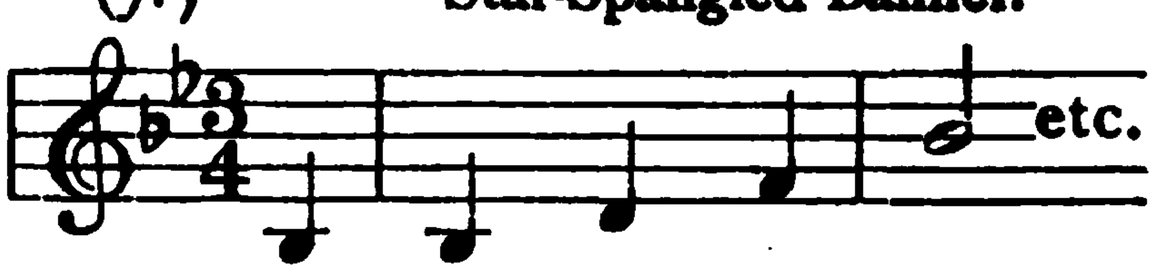


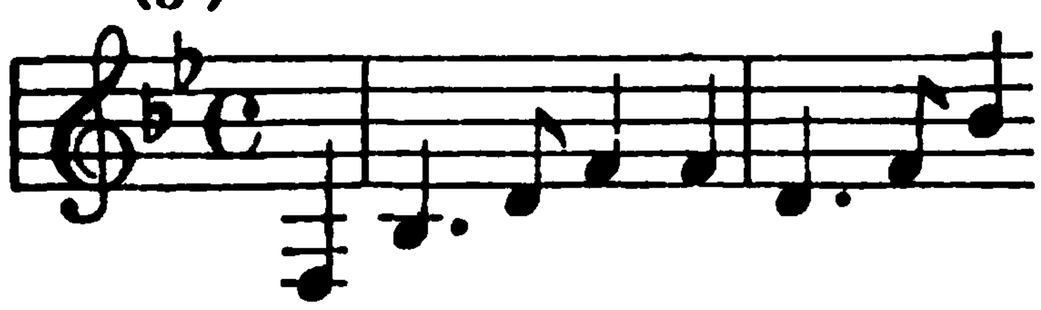
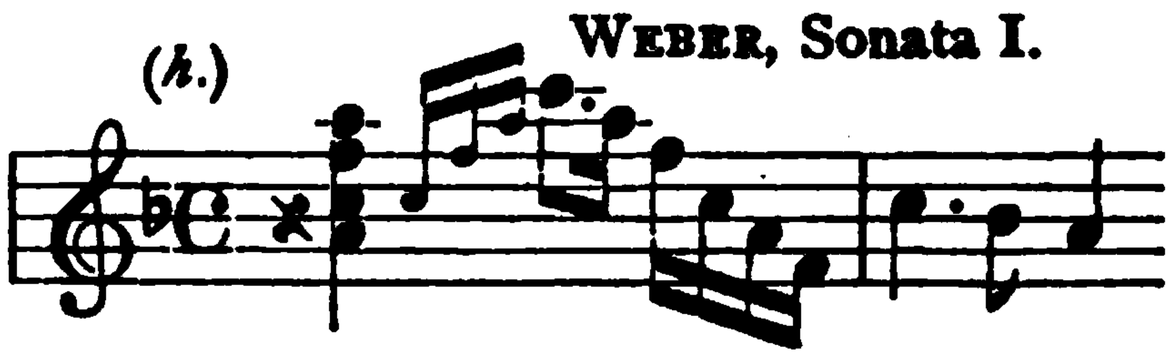
Strings and Clarinet, unison.

(*c.*) BACH, Invention, No. 8.

(*d.*) MOZART, G Minor Symphony.

(*e.*) WEBER, Sonata II.



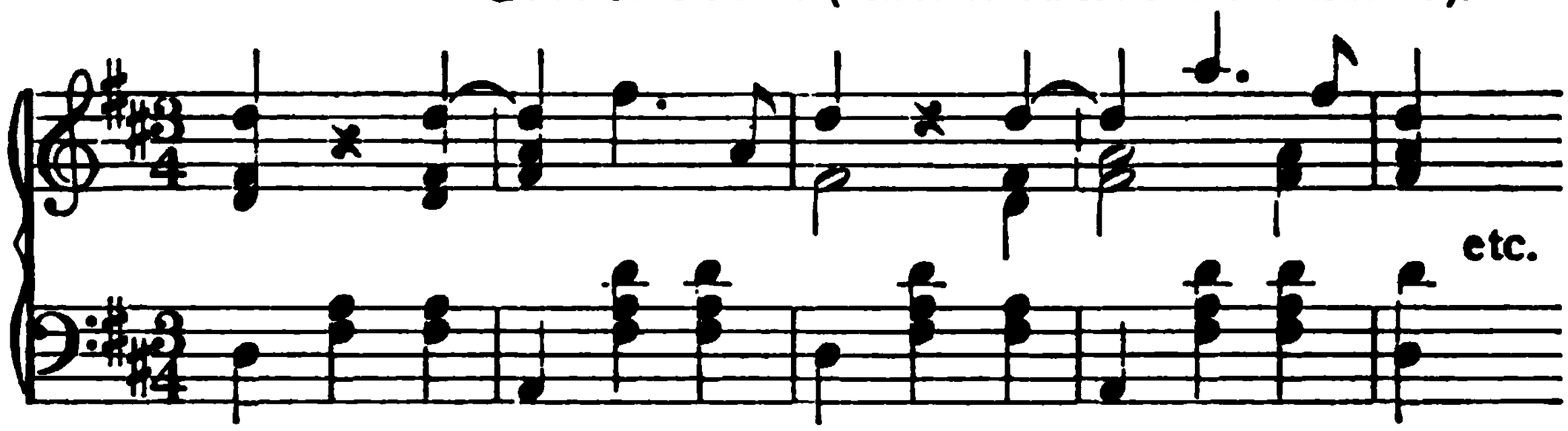
(*f.*) Star-Spangled Banner.

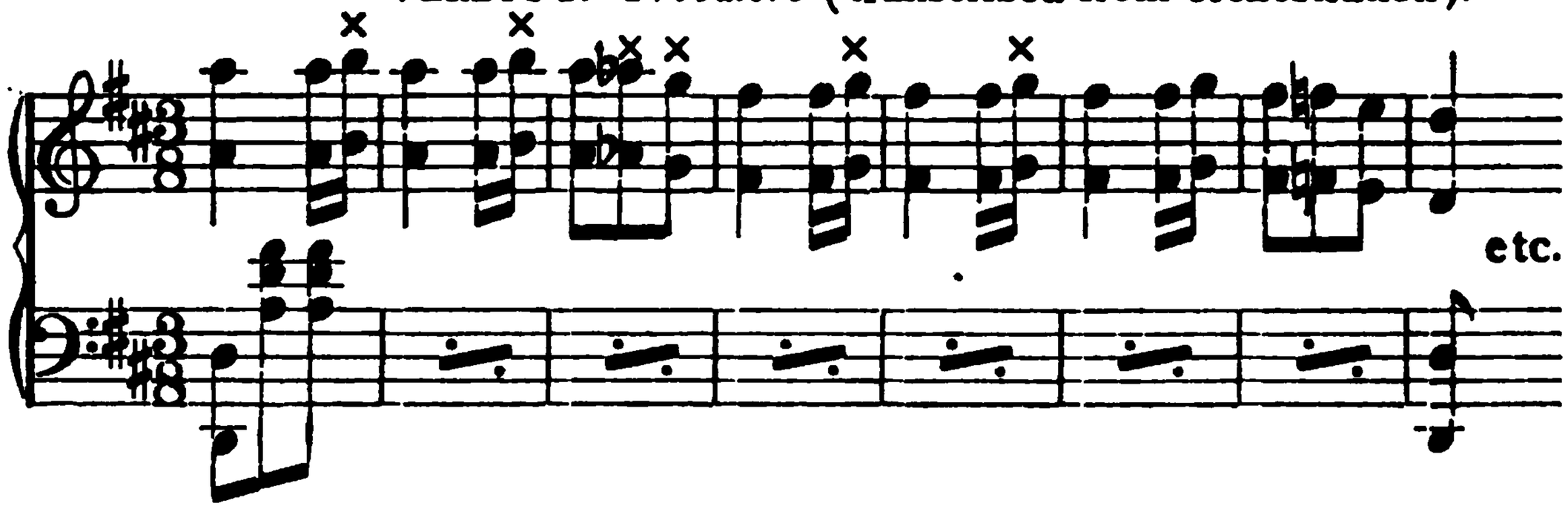


(*g.*) Die Wacht am Rhein.

(*h.*) WEBER, Sonata I.

In all compositions, the use of the tonic chord predominates. An entire period, however, consisting of no other chords than the tonic would often be monotonous.

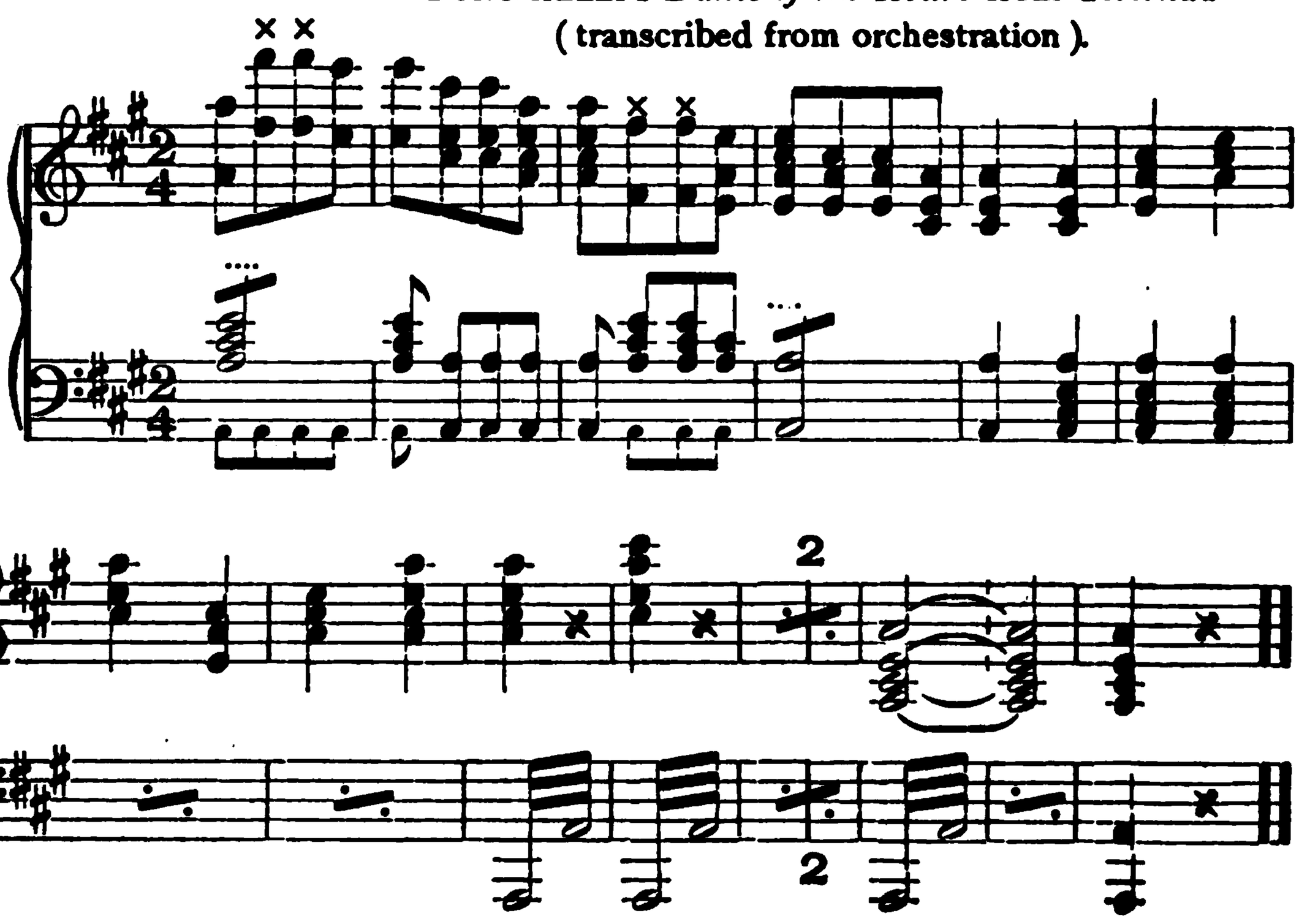
The following quotations from standard compositions serve to show various ways in which the tonic chord has been handled by famous composers.

GOUNOD'S *Faust* (transcribed from orchestration).

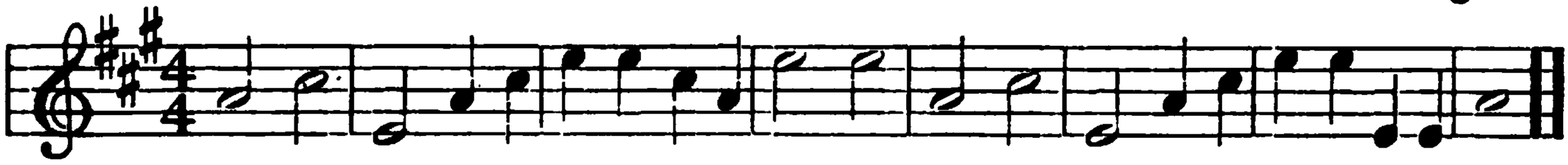
Ex. 9.

VERDI'S *Il Trovatore* (transcribed from orchestration).

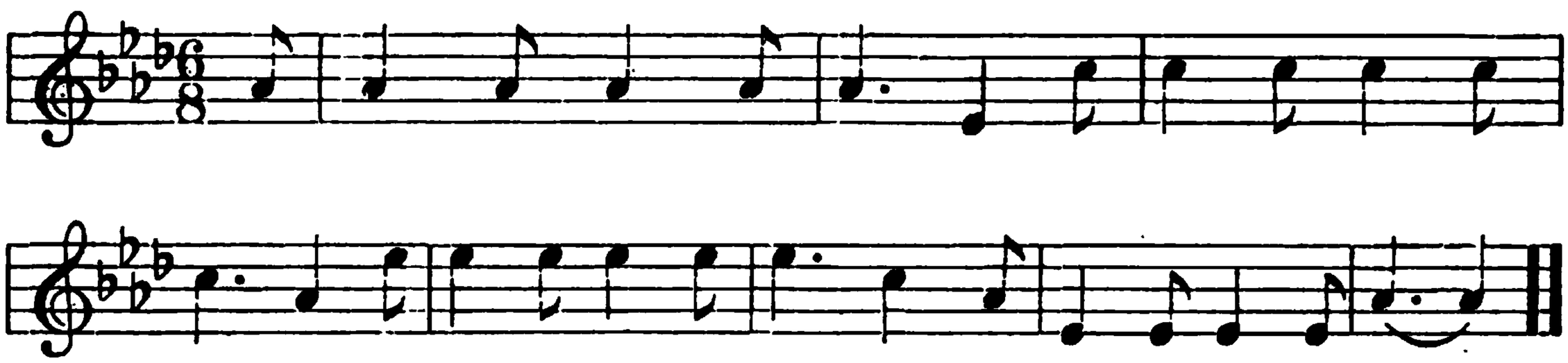
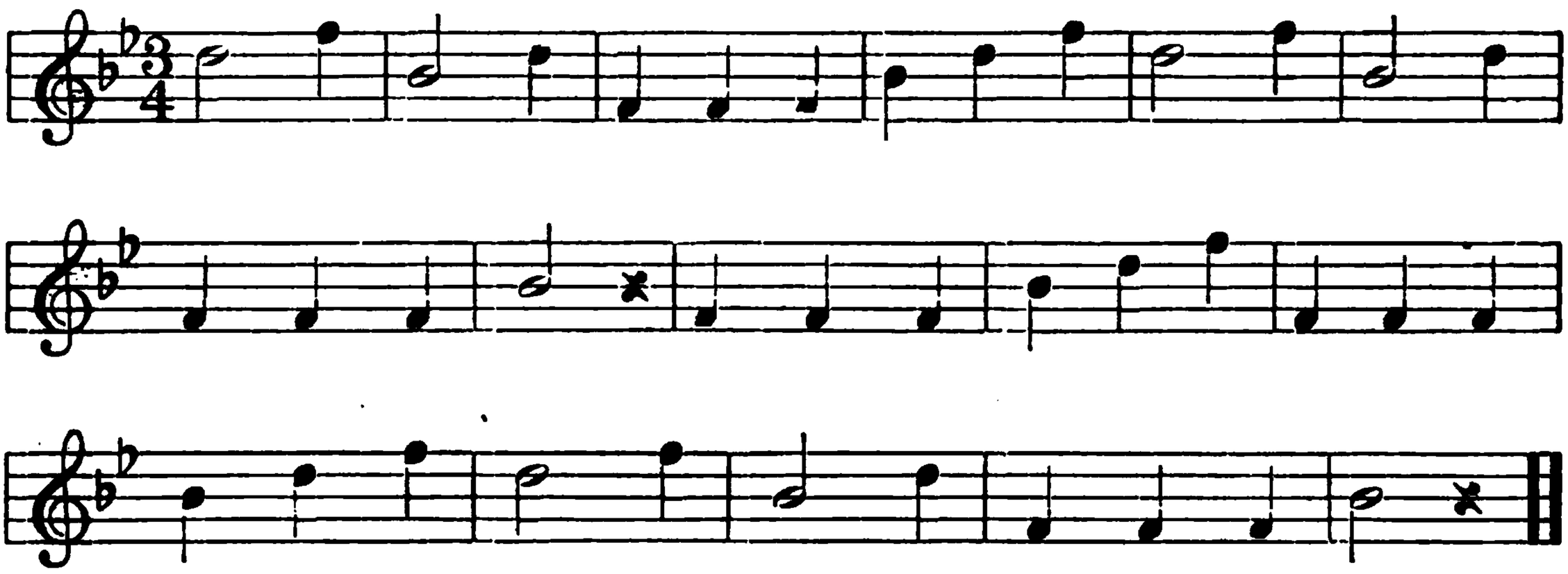
Ex. 10.

The tones marked with a cross (×) are non-chordal and are explained in Chapter 10.

PONCHIELLI'S *Dance of the Hours* from *Gioconda* (transcribed from orchestration).

Ex. 11.

The following melodies should be sung using the sol-fa syllables after which, they should be harmonized with the tonic chord. The harmonization may be for solo pianoforte, solo voice with pianoforte accompaniment, on for four voices.

Exercises, Group I.

1. French Folk Song.

2. English Game.

3. English Game.

4. German Folk Song.

After the exercises have been criticized and corrected by the teacher, the student should play each exercise singing each part in turn.

The student may compose melodies founded upon the tonic chord and harmonize them. The teacher's criticism of this original work will do much to clear misunderstandings.

CHAPTER III.

THE DOMINANT CHORD.

All the tones of the scale other than those which constitute the tonic triad are active in their tendency toward one or more of the tones of the tonic triad.

The 7th scale step (the leading tone) has strong tendency diatonically upward to the tonic.

The 4th scale step (the subdominant) has strong tendency diatonically downward to the third of the tonic triad.

The 6th scale step (the submediant or superdominant) has strong tendency downward to the fifth of the tonic triad.

The 2nd scale step (the supertonic) is characterless in regards to its tendency. Situated midway between the tonic and mediant, it may progress to either. Its progression to the tonic is more final.

Next to the tonic chord in importance and frequency of occurrence is the dominant chord which is founded upon the fifth scale step. The dominant triad is a major triad and is therefore formed like the tonic triad (with major third and perfect fifth). This chord is consonant but active, with tendency to the tonic chord. The leading tone is the most active factor in the chord and it progresses normally to the tonic. The fifth of the dominant triad progresses upward to the mediant thereby supplying the third in the tonic triad. The root of the dominant chord which is inactive as the fifth of the tonic chord assumes a dual character in the dominant chord; in the bass, the root progresses to the tonic (called "cadencing progression") but in an upper voice, it may remain stationary Such a stationary tone is called "common tone."

The root of the dominant chord is the factor most frequently doubled, the fifth, less frequently and the third (leading tone) is almost never doubled in four voice writing. When factor five is omitted in the dominant triad, the root must be tripled.

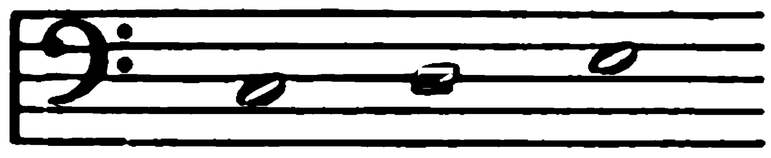
The second inversion of the dominant triad occurs less frequently than the I^6_4.

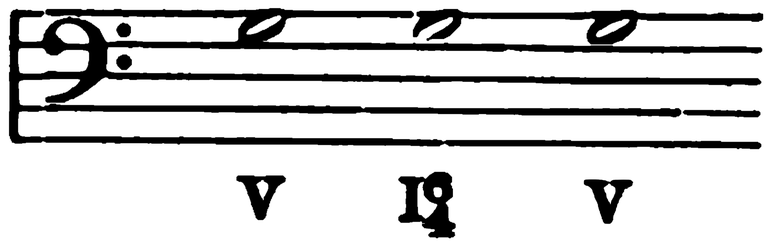
The use of the six-four chord on all degrees of the scale should be restricted to the following four progressions:

1st. Where preceded and followed by root position or first inversion of the same chord, ex.: I, I^6_4, I; or I, I_6, I^6_4, I_6, I, etc.

2nd. Where the tonic six-four chord precedes the dominant chord at the cadence, ex.: I^6_4, V, I.

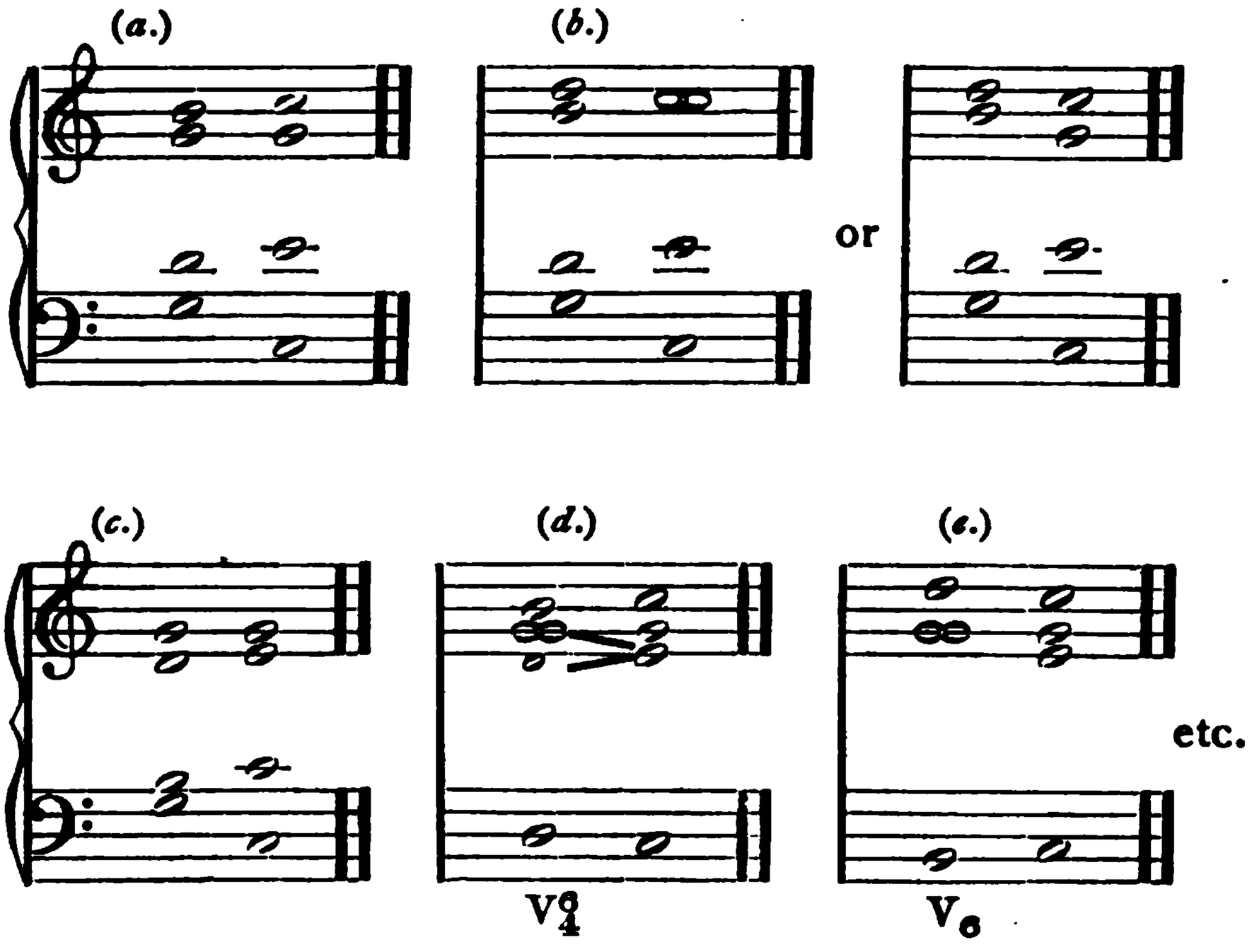
3rd. Where the bass of the six-four chord is approached and quitted stepwise, ex.



4th. Where the six-four chord occurs within a succession of chords progressing over a stationary bass, ex.

In a succession of chords in the first inversion, it is usually advisable to double the root in alternating chords and the third in the remaining chords, but the principle is not of sufficient importance to nullify the rule that the leading tone must not be doubled.

Various arrangements of the progression of the dominant triad to tonic are shown in the following example.

Ex. 12.

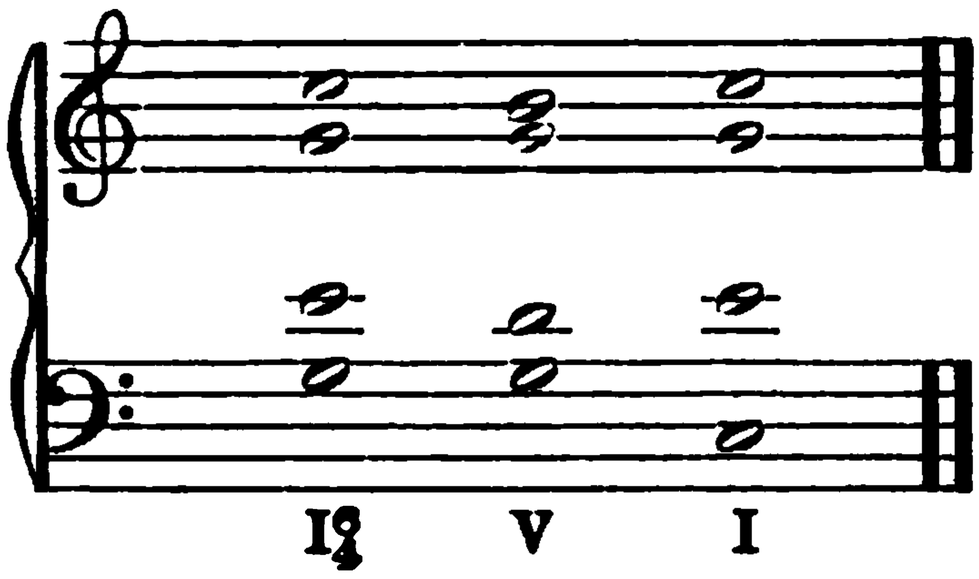


Many melodic progressions imply certain harmonic progressions. For example: the melodic progression at the end of a composition of *ti* to *do* (thus) implies dominant to tonic harmonies. All the possible harmonizations with triads of the above melodic progression (without modulation or chromatic alterations) are V–I, V–VI, VII°–I, III–I, III–VI, VII°–VI, V–IV, III–IV and VII°–IV. In the midst of a period, the above melodic progression may be harmonized V–I but V–VI is frequently advisable. Progressions VII°–I, III–I and III–VI are of less frequent occurrence, and VII°–VI, V–IV, III–IV and VII°–IV are rarely used. In this chapter, the student should use only dominant and tonic harmonies.

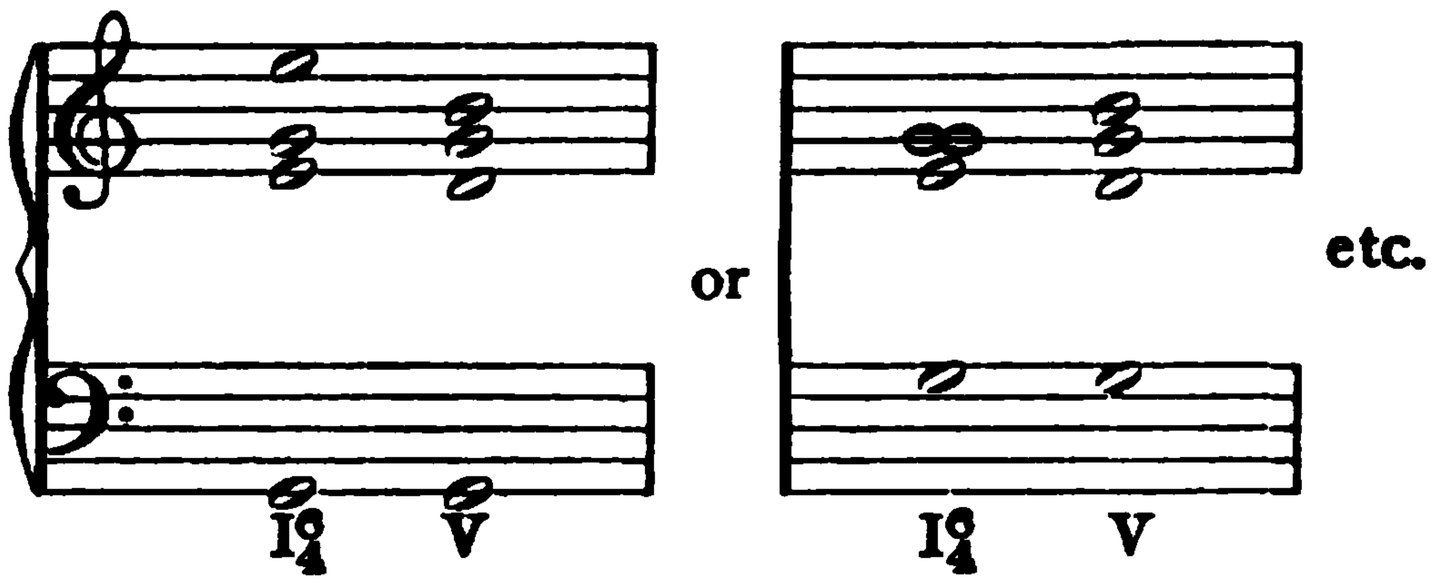
The fifth scale step is a factor in both the tonic and dominant chords and may, therefore, be harmonized with either chord. Principles of variety and coherence usually govern the choice.

Upon the repetition of a tone in the melody, it is frequently advisable, for the sake of variety, to change the harmony upon the repeated tone.

A valuable use of the tonic six-four chord is upon the third from the last chord of a period if the melody permits. This chord is followed by the dominant chord which progresses to the tonic triad in root position. Such a six-four chord may be called a "cadencial six-four."

Ex. 13.

The cadencial six-four chord may be written without its root:

Ex. 14.



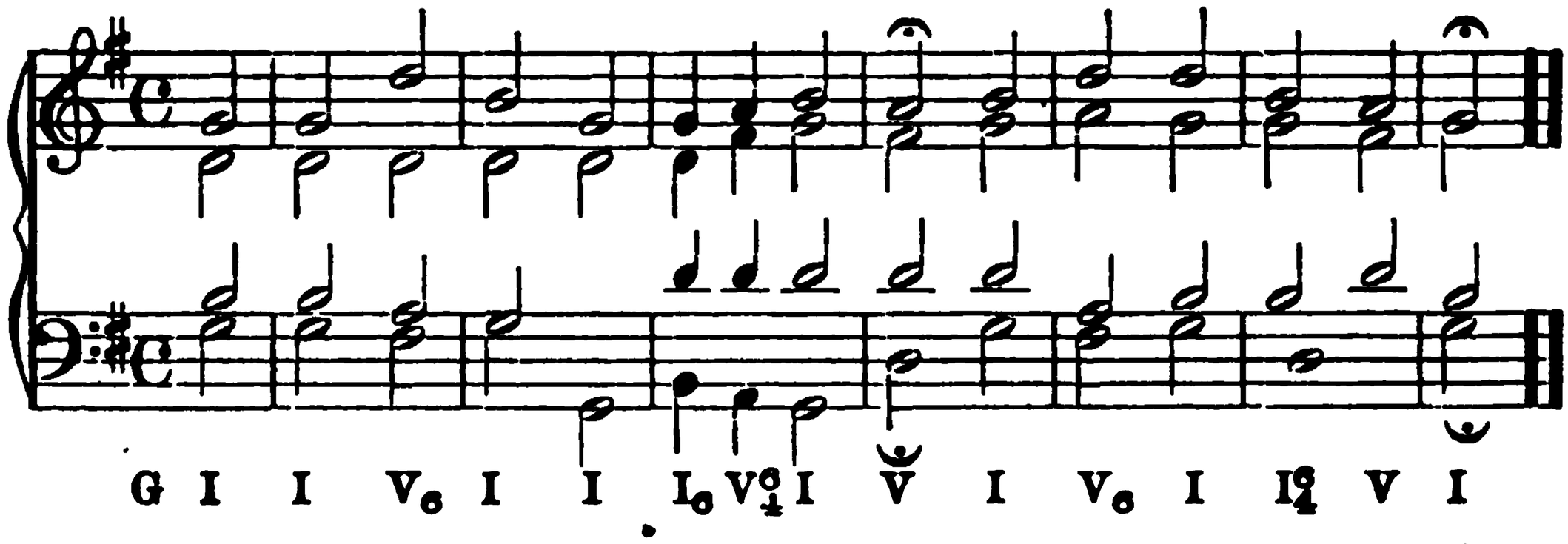
This chord, may, of course, be analyzed as a mediant sixth chord but its effect is that of the cadencial six-four.

Parallel and consecutive fifths and octaves should be avoided in chord progressions. See page 23.

The following example should be studied:

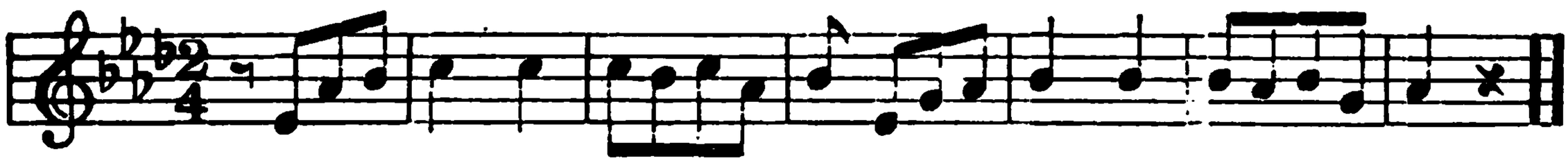
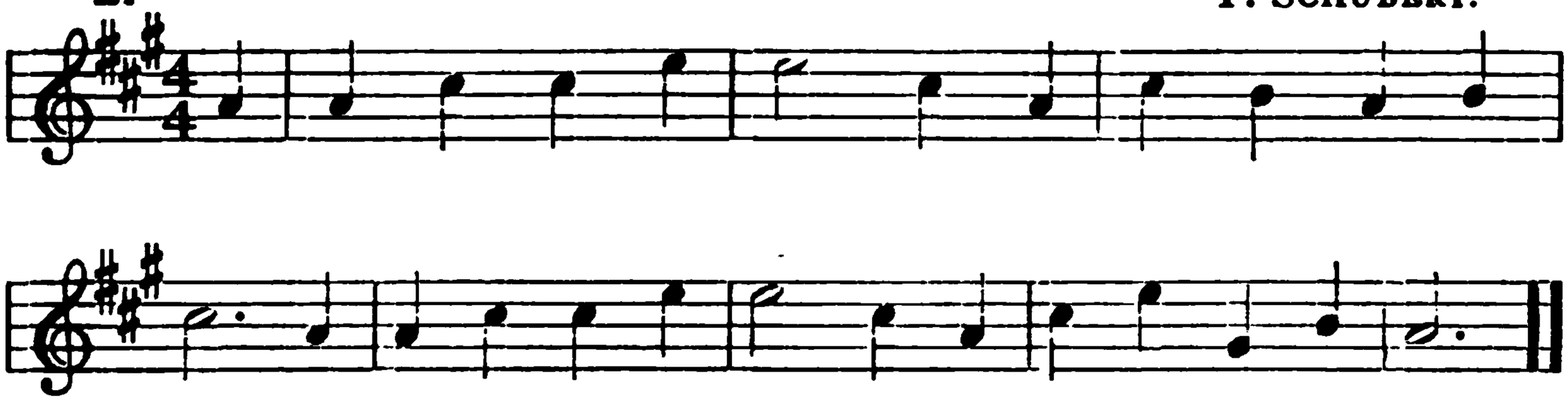
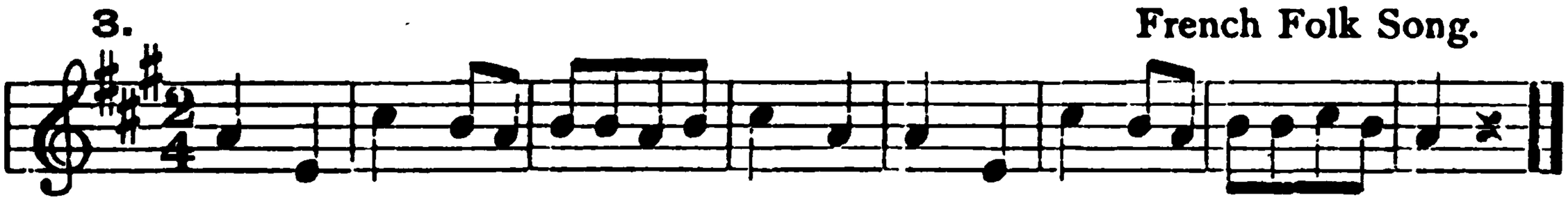
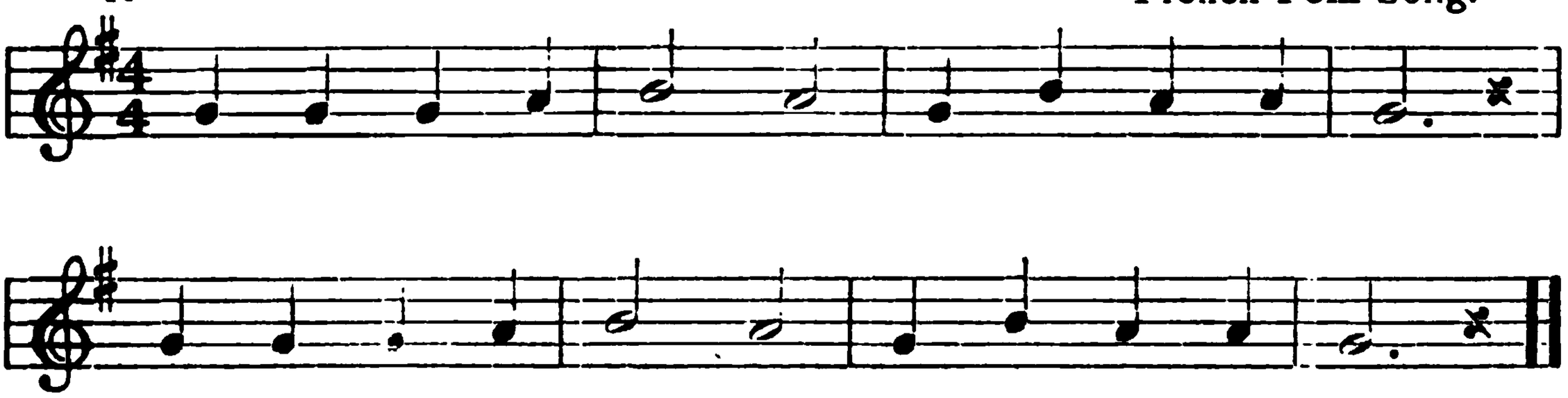
17th Century Choral.

Ex. 15.



Open position may be used occasionally in the following exercises.

Exercises, Group 2.

1. French Folk Song.

2. F. Schubert.

3. French Folk Song.

4. French Folk Song.

5. Reharmonize the exercises in Group I, page 8, using the dominant triad as well as the tonic. The first inversion of the dominant triad will be necessary in most places because the nature of the melodies cause consecutive octaves when the dominant triad is used in root position. The V_6 should be used in the penultimate measure of each exercise.

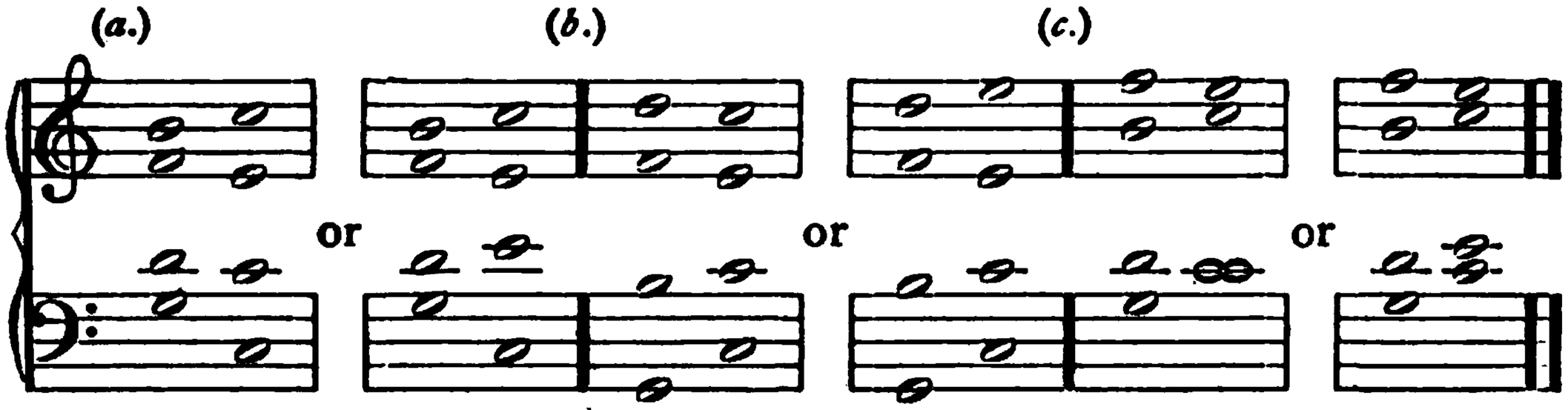
The Dominant Seventh Chord.

To any triad may be added the seventh (of the root) and the resultant chord is called a seventh chord. All seventh chords are dissonant and active in varying degrees according to structure and character. The dissonant factors of a chord are best approached by contrary motion. The most common seventh chord is the dominant.

The dominant seventh chord is formed with major triad and minor seventh, and is the only chord thus formed. The dominant seventh chord normally resolves to the tonic triad. Its tendency is greater than that of the dominant triad because of the additional active factor, the dissonant seventh.

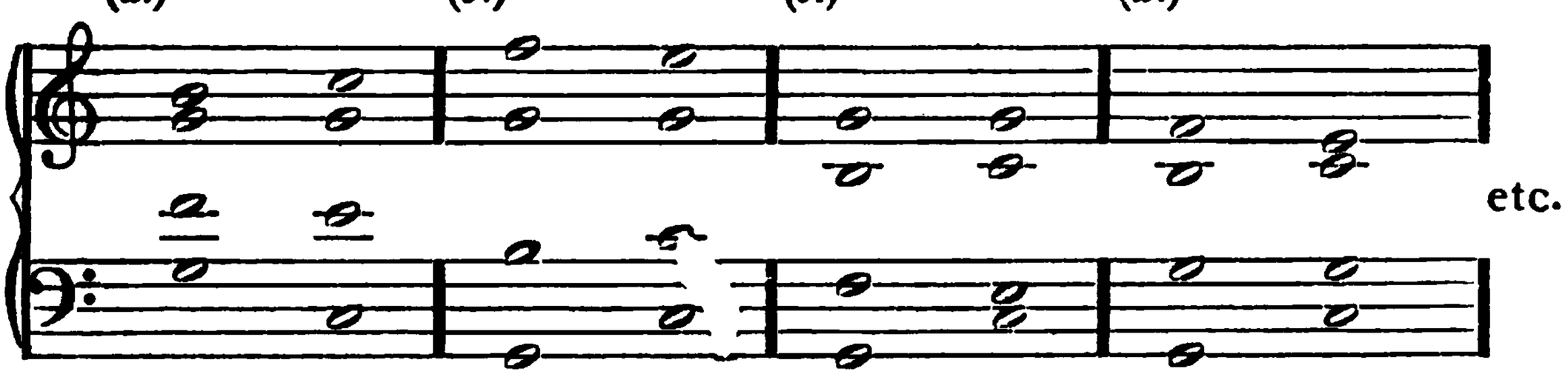
Sevenths in all chords normally resolve diatonically downward. The seventh in the dominant chord resolves to the third of the tonic triad. The fifth is free to resolve either up or down diatonically. The third (leading tone) resolves upward diatonically. The root in the bass resolves to the tonic but in an upper voice, it may remain stationary.

Ex. 16.

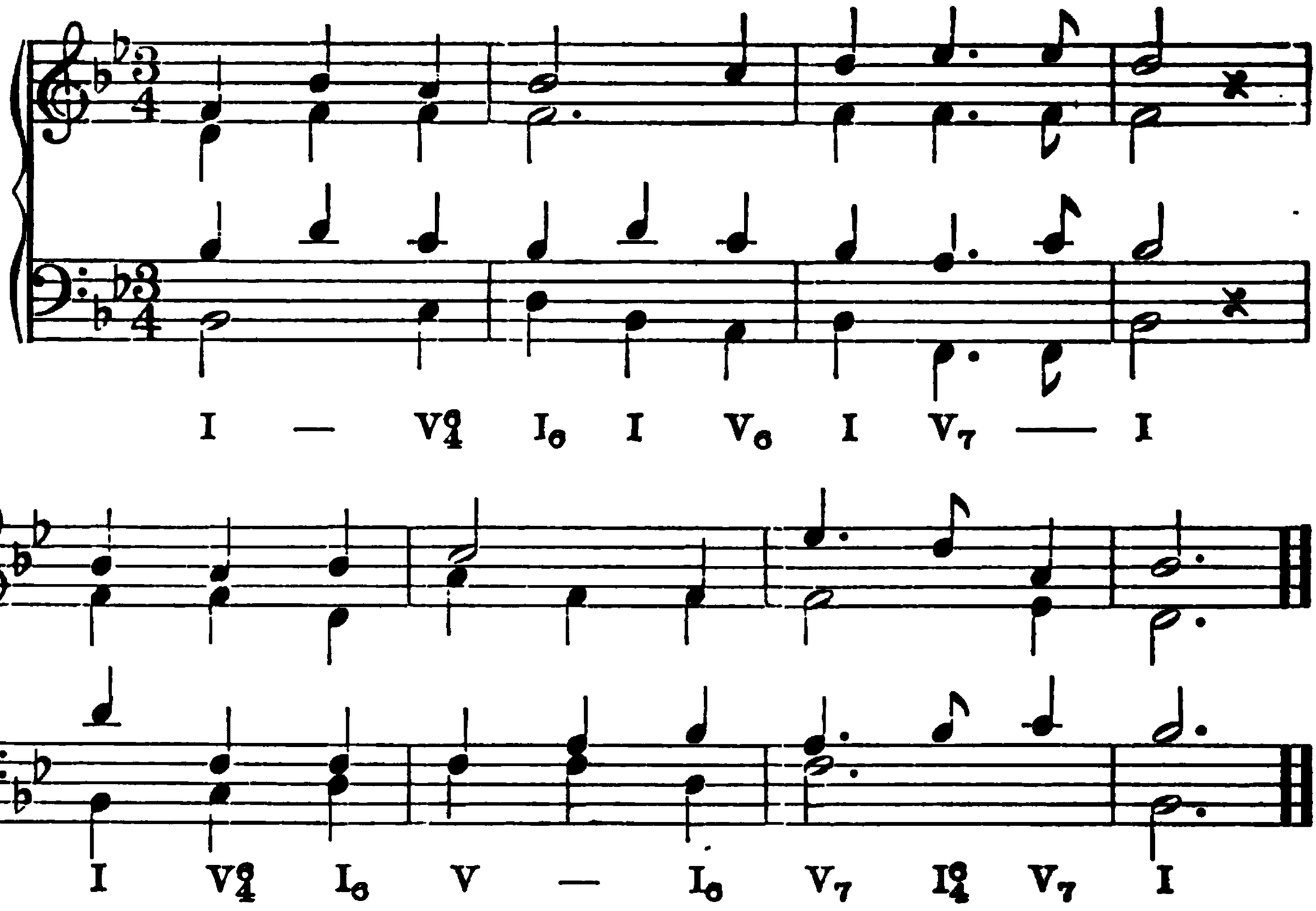


The student's attention is directed to the fact that no doubling of factors in a seventh chord is necessary in four voice writing. Attention is further directed to the fact that the tonic chord resulting from the above resolution is incomplete. The resolution is wholly satisfactory however; the ear supplies the missing fifth in the tonic triad. Notice the difference in effect between the triad with tripled root and the triad with doubled root. The latter has a more plaintive characteristic than the former while the former is more decided and final.

The fifth in the seventh chord may be omitted and the root doubled, in which case the resultant tonic triad will be complete, thus:

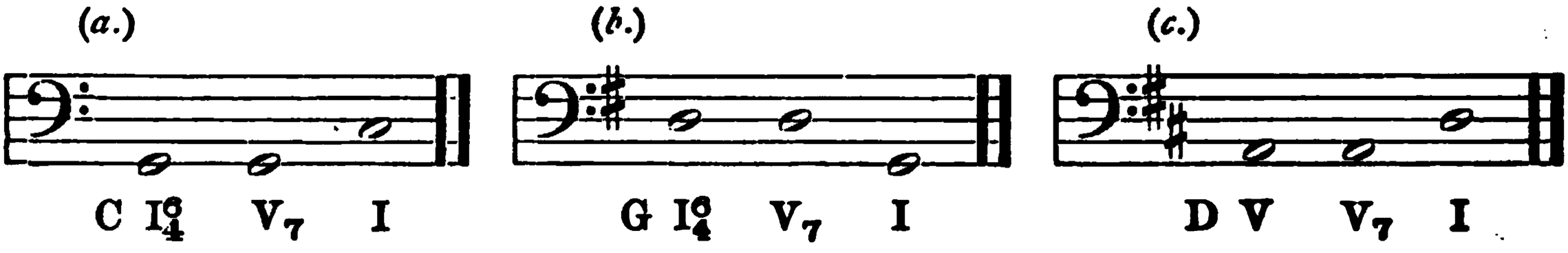
Ex. 17.

Not infrequently, cases of seventh chords with omitted thirds are found in standard compositions. Such chords, however, lack the character possessed by chords in which the third is not omitted but their use is justified where improved voice leading thereby results. The student should avoid this arrangement until experience in part writing has been gained.

Study carefully the following example.

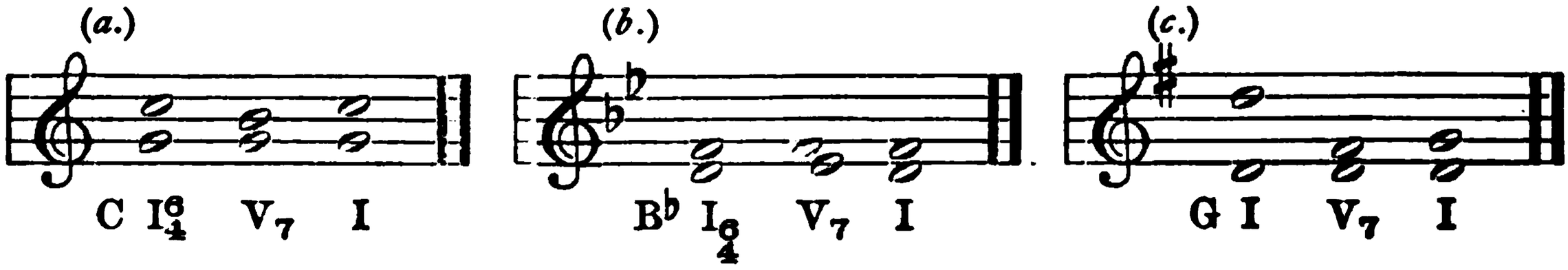
Ex. 18.

Exercises, Group 3.

1. Resolve the dominant seventh chord (complete and incomplete) to the tonic triad in all major keys.

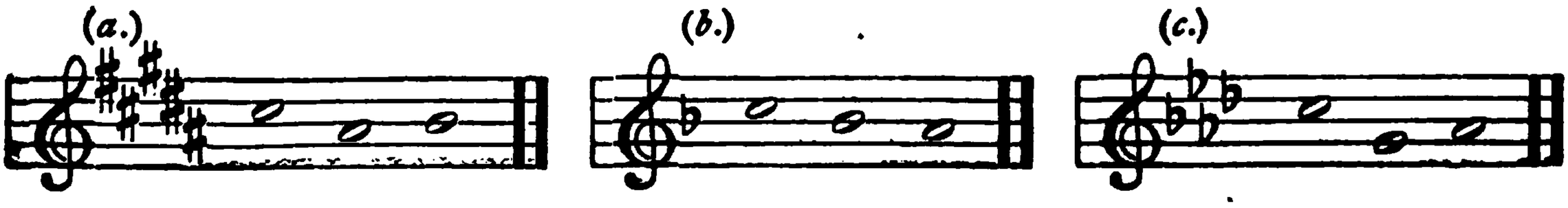
2. Fill in the upper voices in the following progressions:



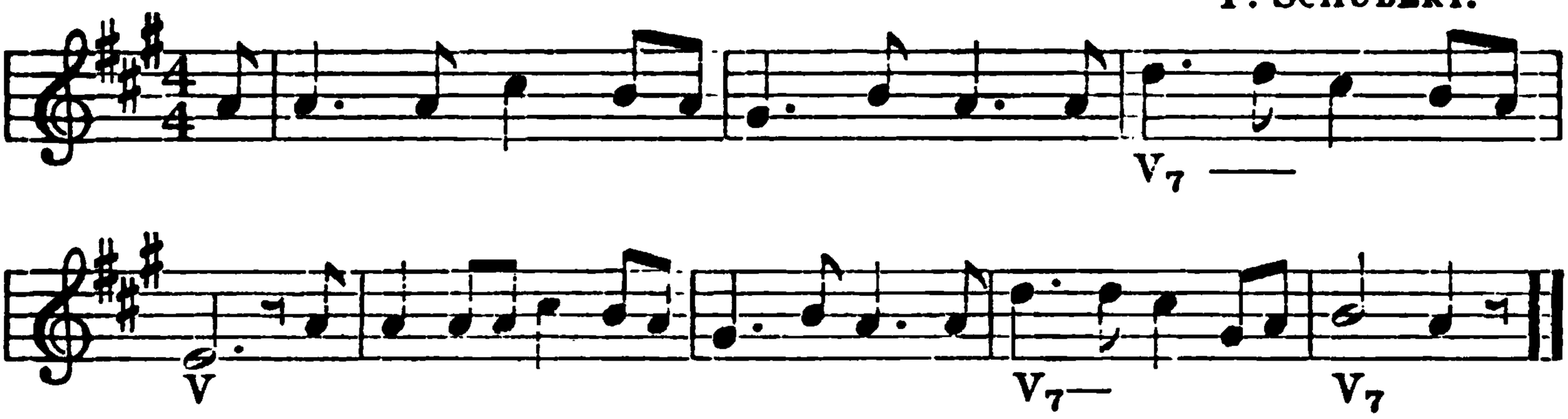
3. Fill in the bass and tenor in the following progressions, using the incomplete dominant seventh chord:



4. Harmonize the following melodic fragments using the dominant seventh chord complete or incomplete:



5. Harmonize the following melody:

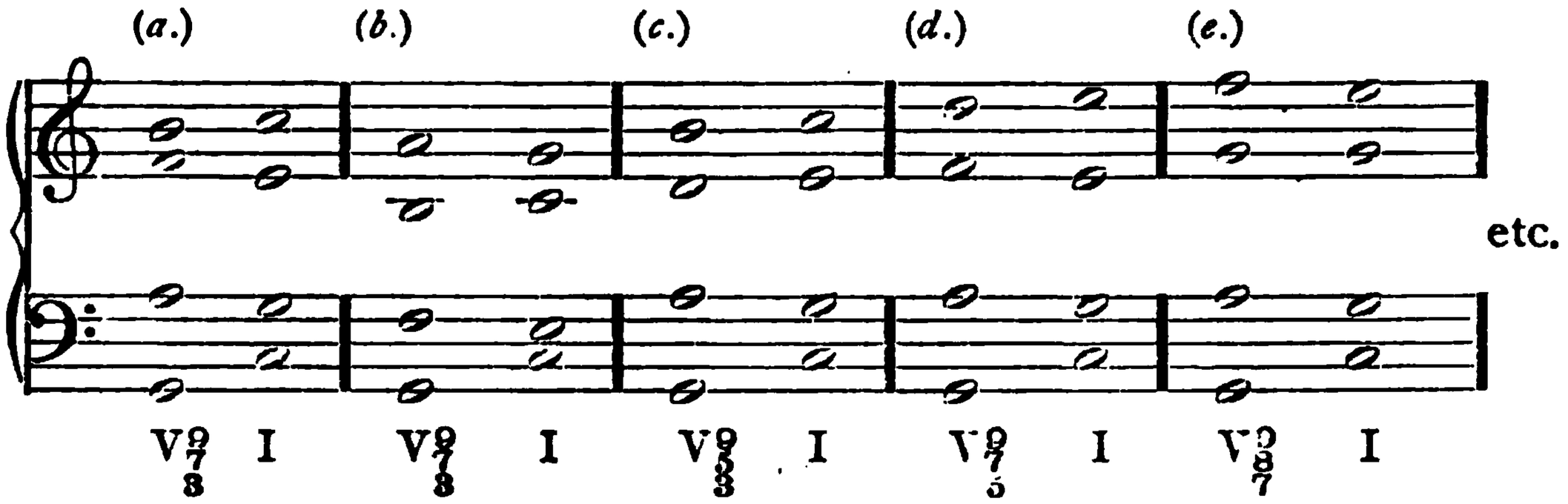
F. SCHUBERT.

THE DOMINANT NINTH CHORD.

To any seventh chord may be added the ninth (of the root) and the resultant chord is called a ninth chord. All ninth chords are dissonant and active. Ninth chords are usually more effective in open position than in close position. The dominant is, by far, the most frequently used ninth chord.

The ninth of the dominant in the major mode is a major ninth and resolves diatonically downward. The remaining factors of the dominant ninth chord resolve in the same manner as in the seventh chord. The ninth chord contains five factors, one of which must be omitted when writing for four voices. The factor most frequently omitted is the fifth, less frequently the seventh and occasionally the third. On rare occasions two factors may be omitted and the root doubled.

Study and compare the following resolutions:

Ex. 19.



All the tones of the scale have now appeared as factors in one or more of the chords which have thus far been considered, and we now have material for harmonizing melodies containing all the tones of the diatonic scale providing that the fourth and sixth scale steps progress according to their tendency (downward diatonically). Such melodies harmonized in the above manner, however, would sound fragmentary and "choppy" because of the final cadences which result from the resolution to tonic of the dominant seventh and ninth chords.

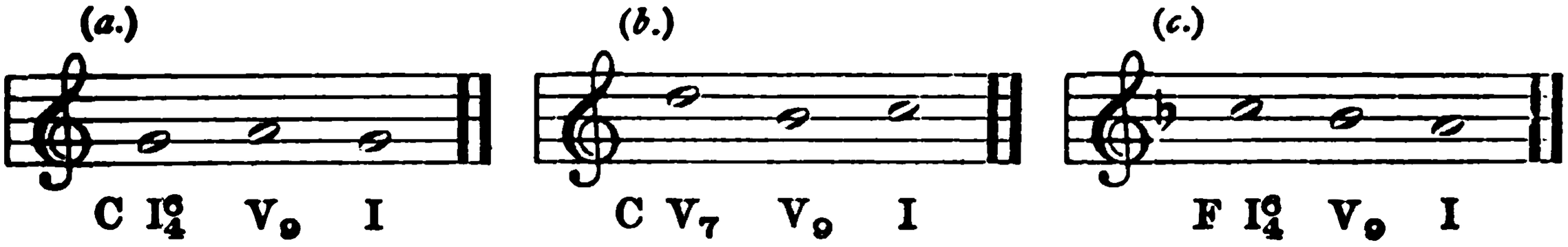
Exercises, Group 4.

1. Resolve the dominant ninth chord in open or close position to the tonic triad in all major keys.

2. Fill in the upper voices in the following progressions:

D I^6_4 V_6 I E I^6_4 V_6 I C V_7 V_6 I

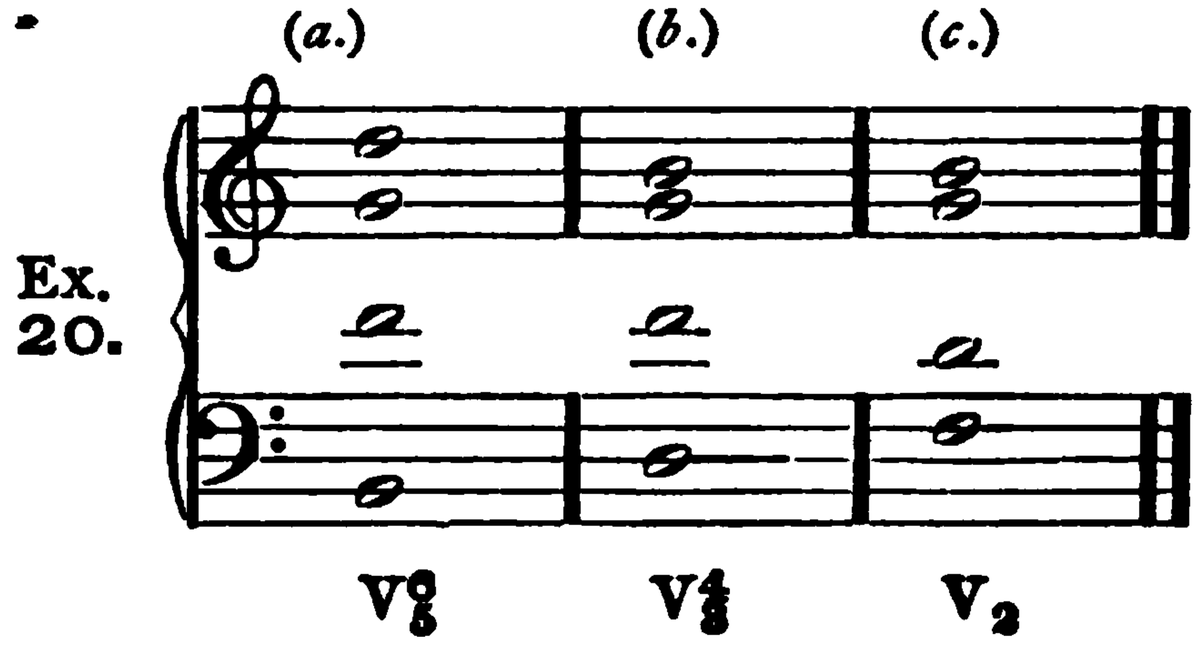
3. Harmonize the following fragments using the dominant ninth chord:



C I^6_4 V_6 I C V_7 V_6 I F I^6_4 V_6 I

Inversions of the Dominant Seventh Chord.

The dominant seventh chord has three inversions which are notated and figured in the following example:

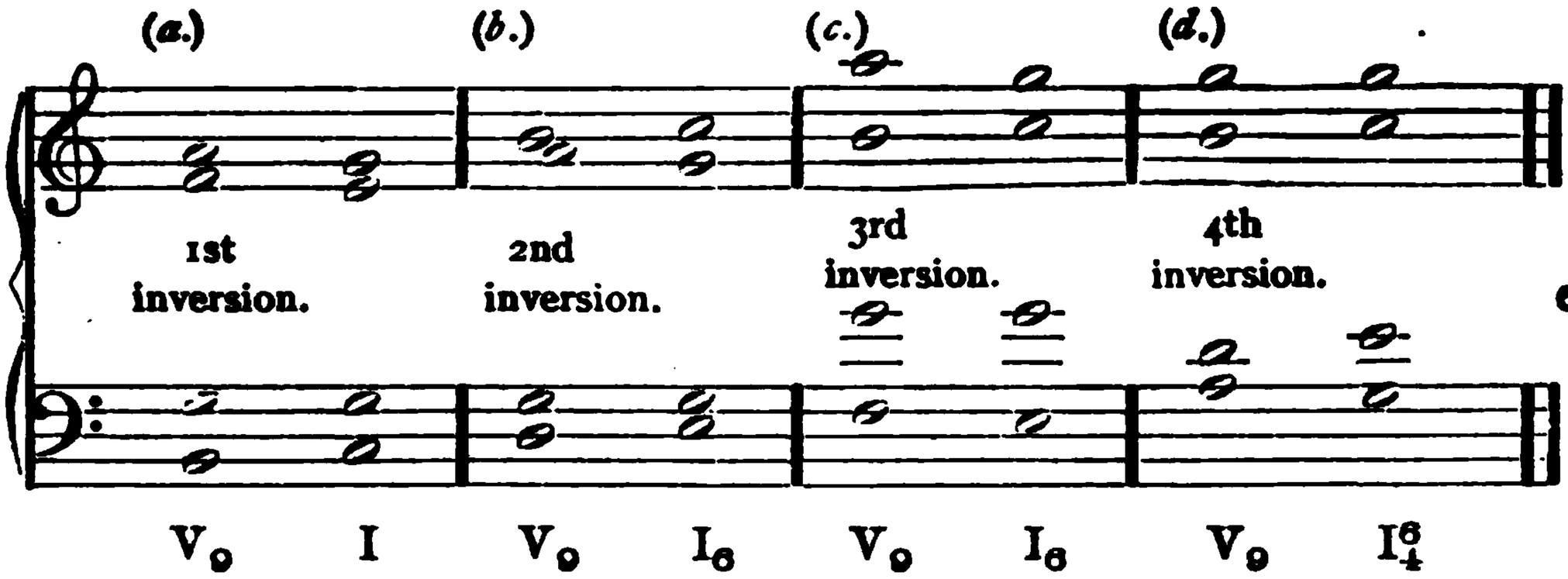


A factor should seldom be omitted in an inverted seventh chord.

The factors resolve in the inversions in the same manner as in root position. The first inversion (V^6_5) frequently occurs. The second inversion (V^4_3) is less restricted upon approach than is the second inversion of a triad and may resolve to either I or I_6. The third inversion (V_2) is an effective dissonant and resolves to I_6. It is more effective upon a strong pulse than upon a weak pulse. The first and second inversions may be used upon the final cadence but they are less frequently used in homophonic style than in polyphonic style. The use of the third inversion does not, of course, result in finality.

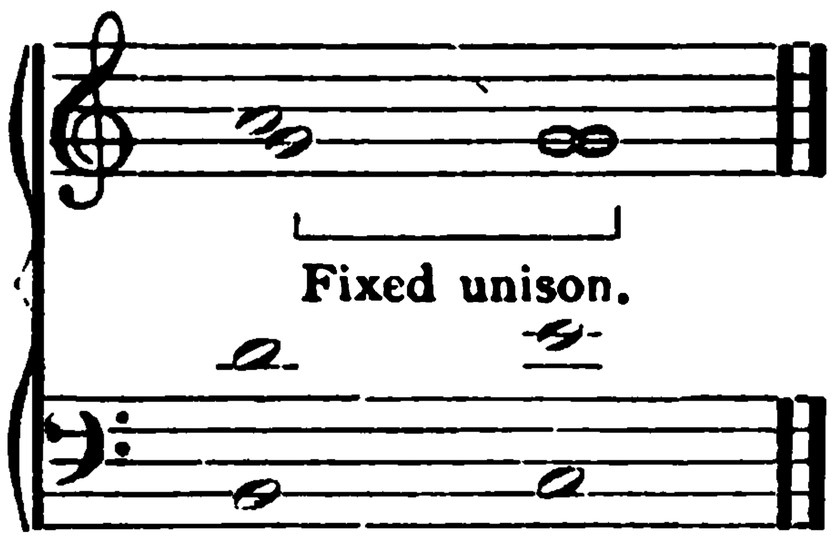
The inversions of the ninth chord do not occur commonly although they may be used effectively.

Ex. 21.



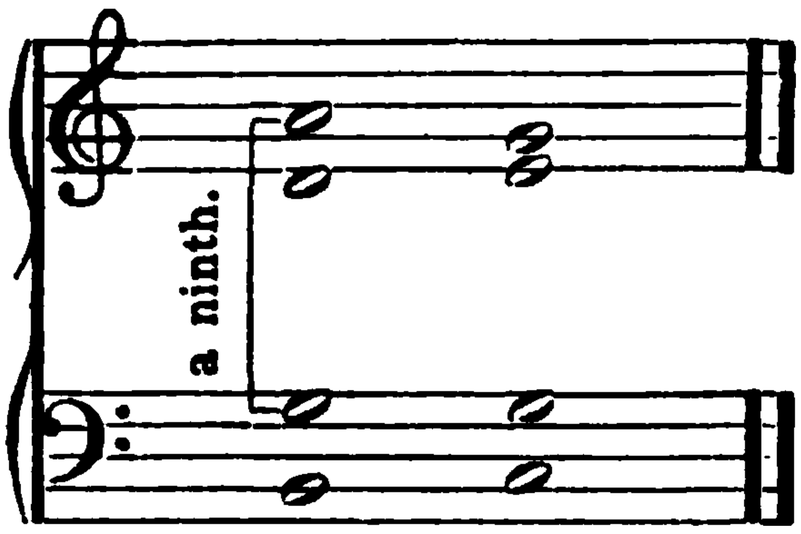
The student should avoid resolving a dissonant to a fixed unison:

Ex. 22.



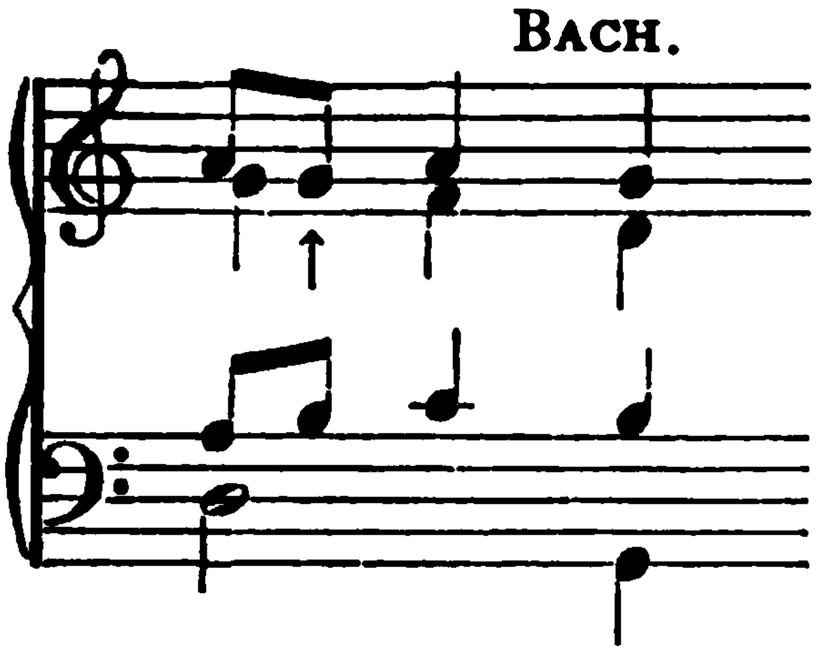
Hence, the use of open position for inverted ninth chords is desirable:

Ex. 23.



Composers have resolved a dissonant to a fixed unison but skillful voice leading must accompany such a progression.

Ex. 24.



But this is a passing dissonant.

THE MELODIC LINE.

A good melodic line is produced by diatonic progression with judiciously introduced skips and chromatic steps, devoid of monotony but uniformly constructed.

Smooth melody is produced by diatonic or chromatic progression but such progression used exclusively becomes monotonous and should, therefore, be alleviated by the use of skips. The frequency of the occurrence of skips depends upon the character of the composition as a whole, upon the rapidity of the melodic tones, upon the desired effect, and upon the particular voice part in hand.

Skips in a melodic line produce a rugged and vigorous effect and are, therefore, adapted to a strong bass part in a rhythmically well-marked composition, or to a thematic voice part when a composition is in rugged style as opposed to a lyrical style.

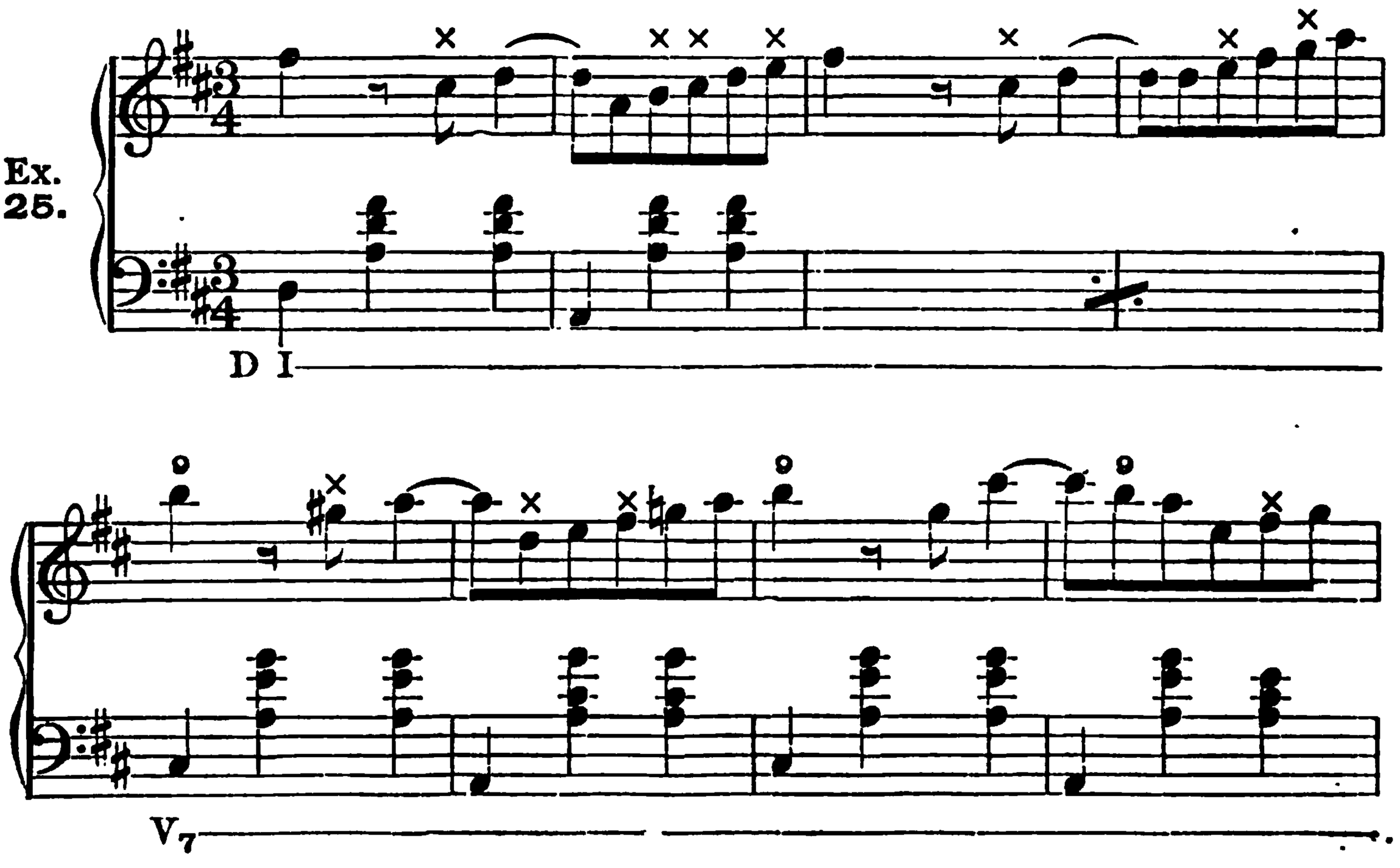
When striving for a good melodic line, the tendencies of the scale steps must be borne in mind. A downward scale figure may overcome the tendency of the seventh scale step and an upward scale figure may overcome the tendency of the sixth or fourth scale step. Sustentation, however, of the active scale steps normalizes their tendencies. On the other hand, the tendencies of active scale steps are increased when approached along the scale line in the same direction as their resolutions, and, therefore, an upward scale figure should seldom turn on the seventh scale step and a downward scale figure should seldom turn on the sixth or fourth scale steps.

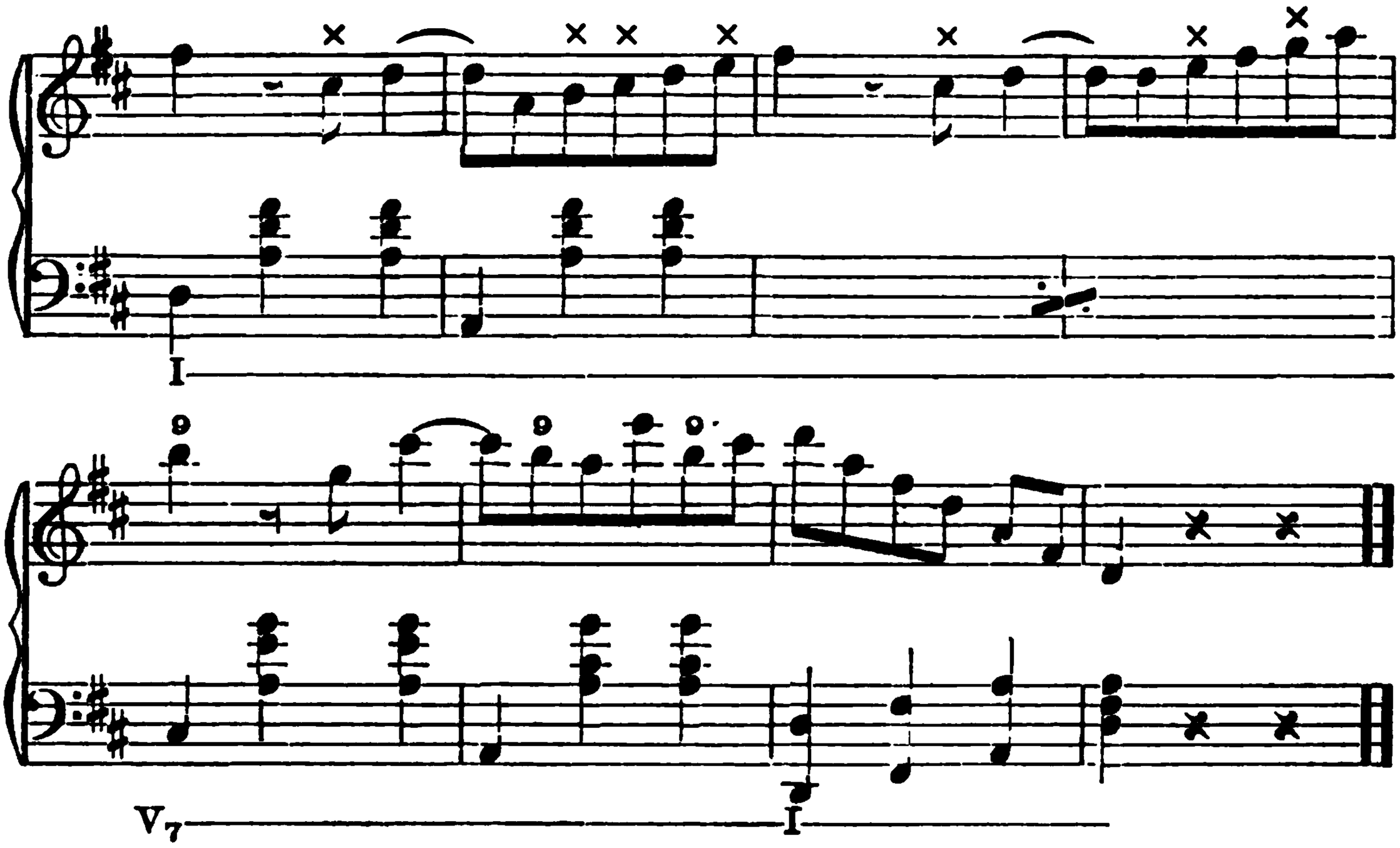
Skips to the leading tone should seldom be made from below but from above. A skip from above increases the tendency of the leading tone to resolve upward to the tonic. Skips from below will be found in compositions but these require careful manipulation. Skips to the sixth or fourth scale steps are safer when made from below, in which case an increased tendency results. In general, wide leaps in any direction and to any tone usually imply an obligation to return within the interval of the leap. All the foregoing remarks apply only to harmonic progressions and not to cases where skips are made in a voice part during the repetitions of the same harmony.

Quotations follow showing applications of the tonic and dominant chords.

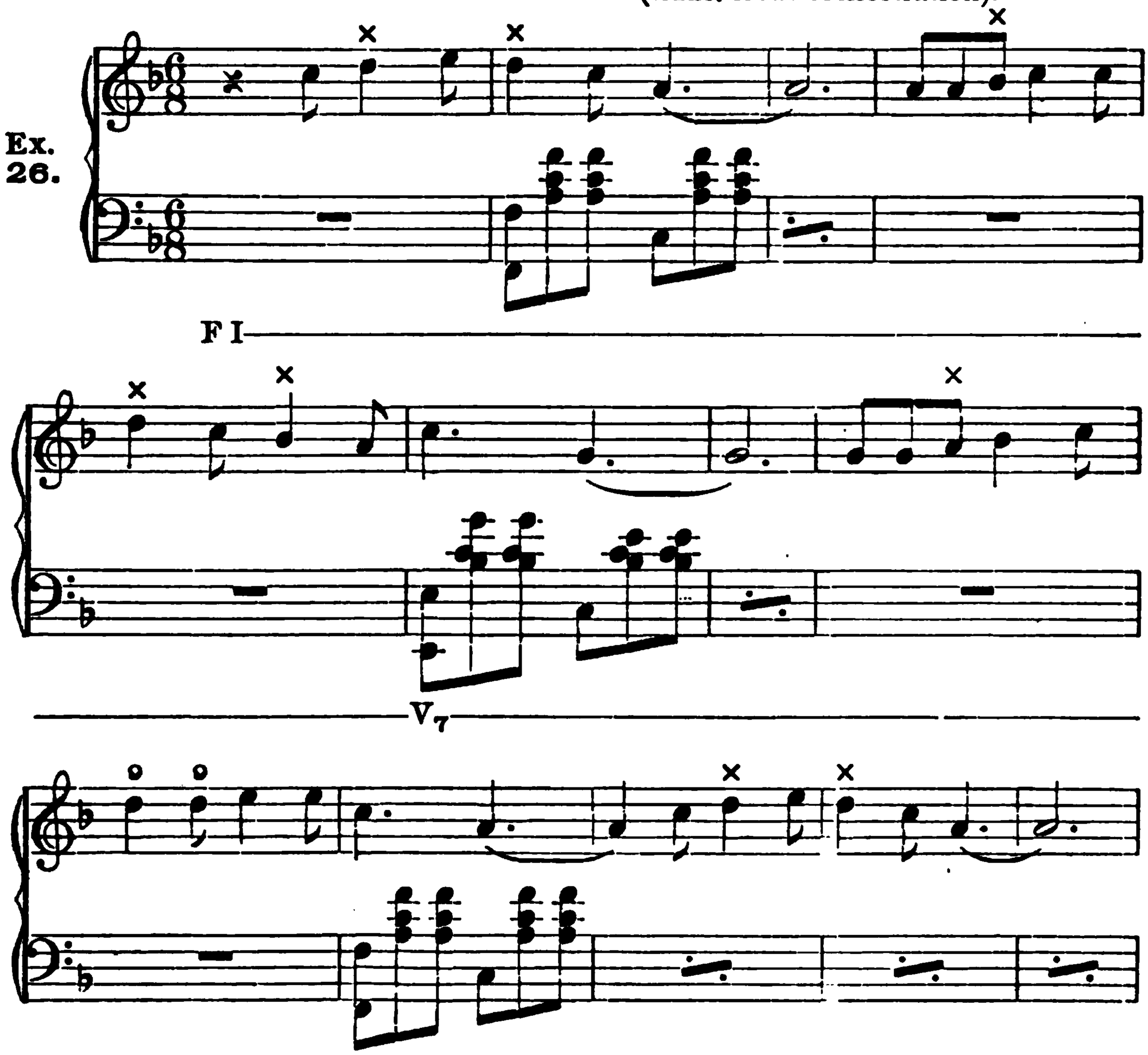
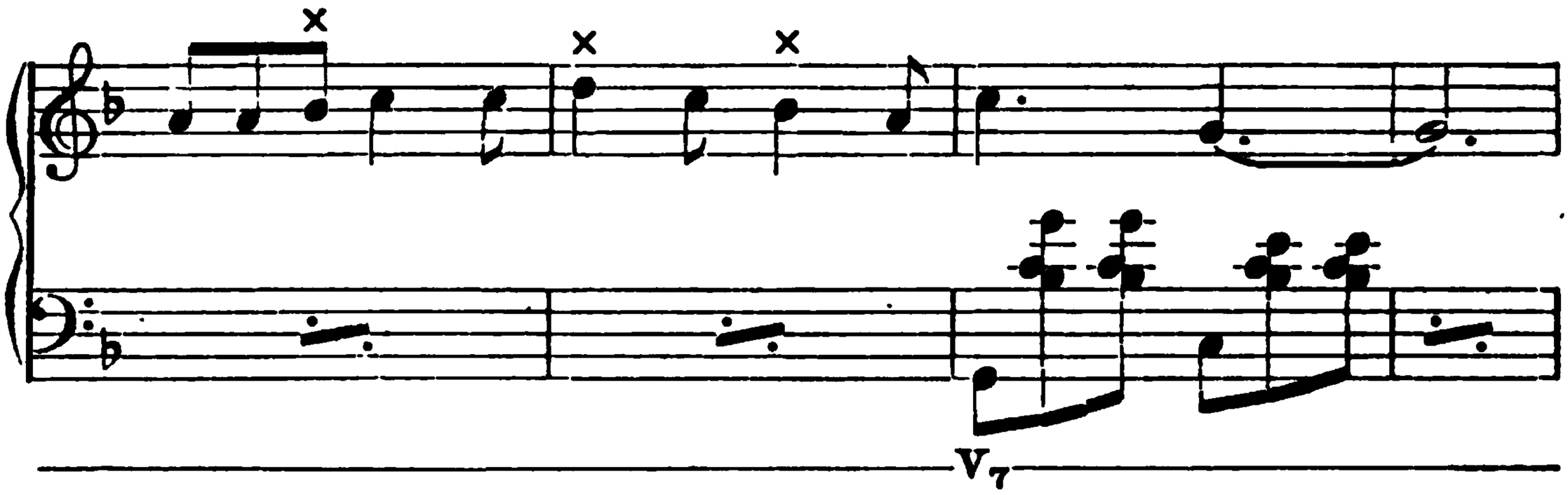
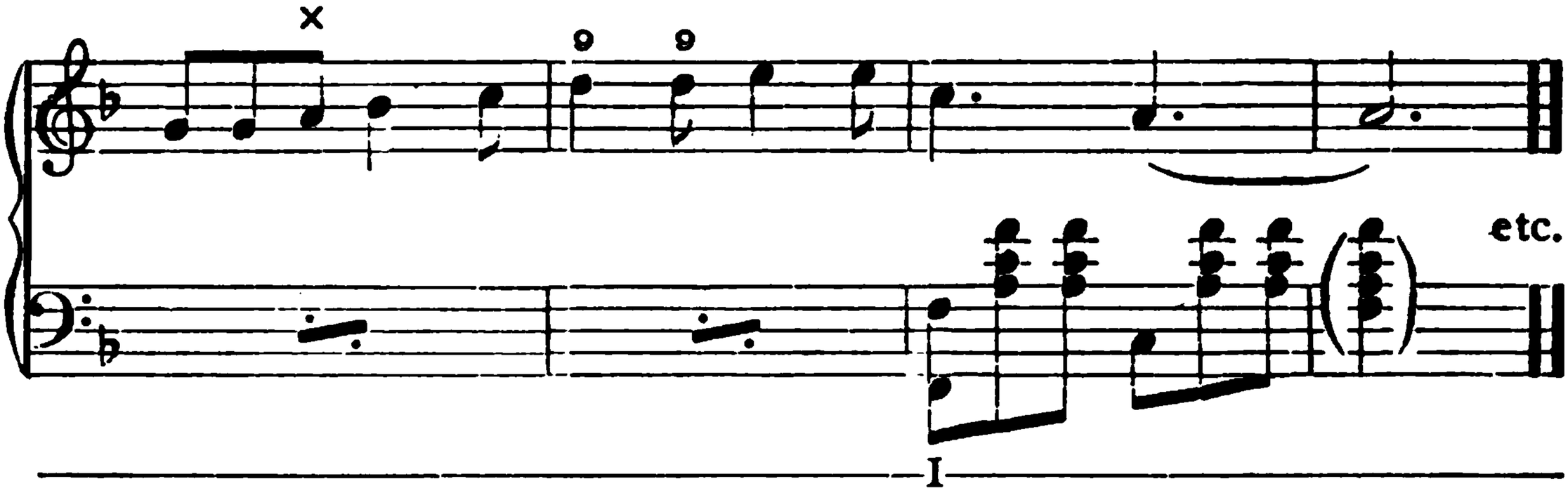
Ex. 25.

From GOUNOD'S *Faust* (trans. from orchestration).

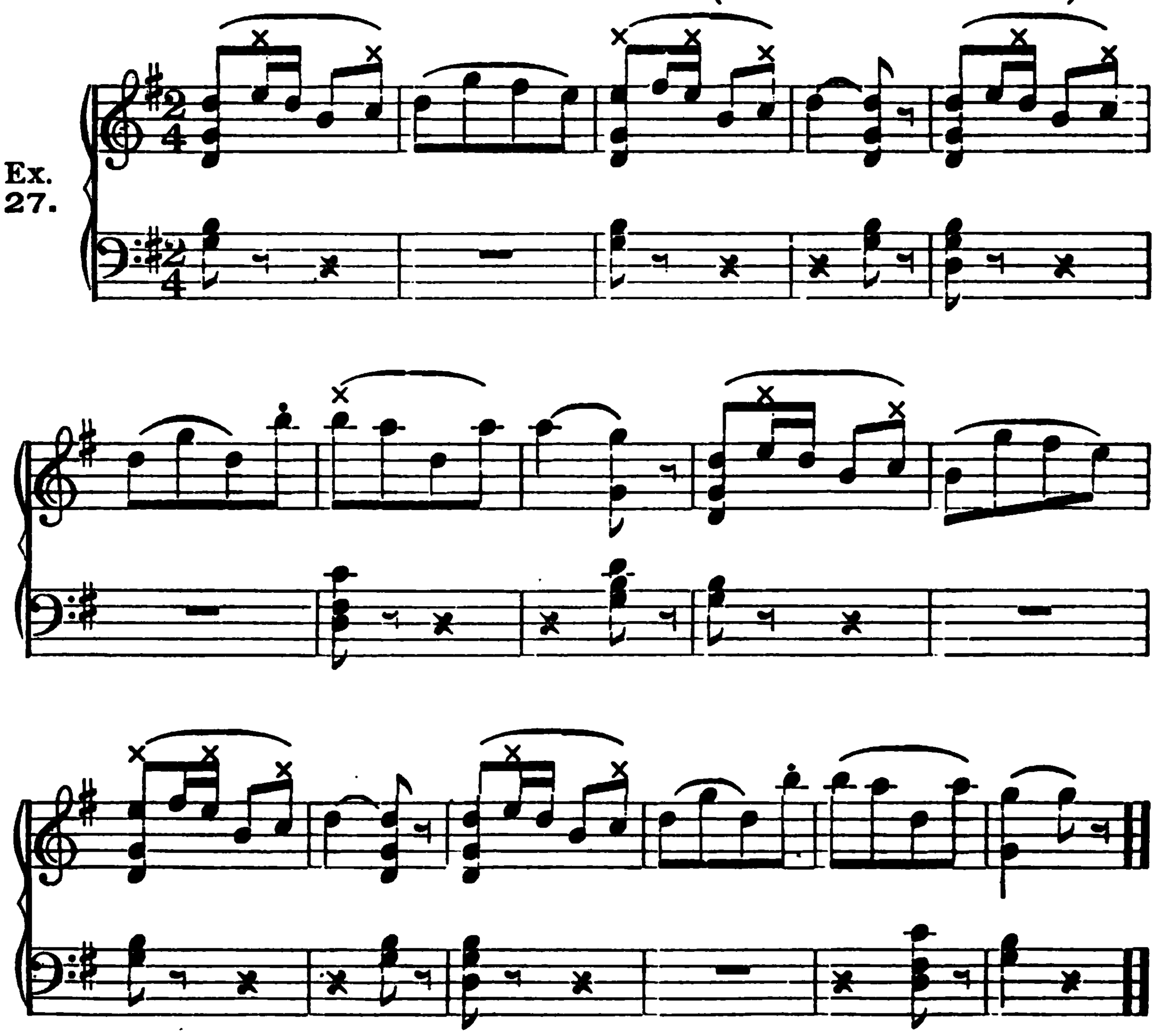


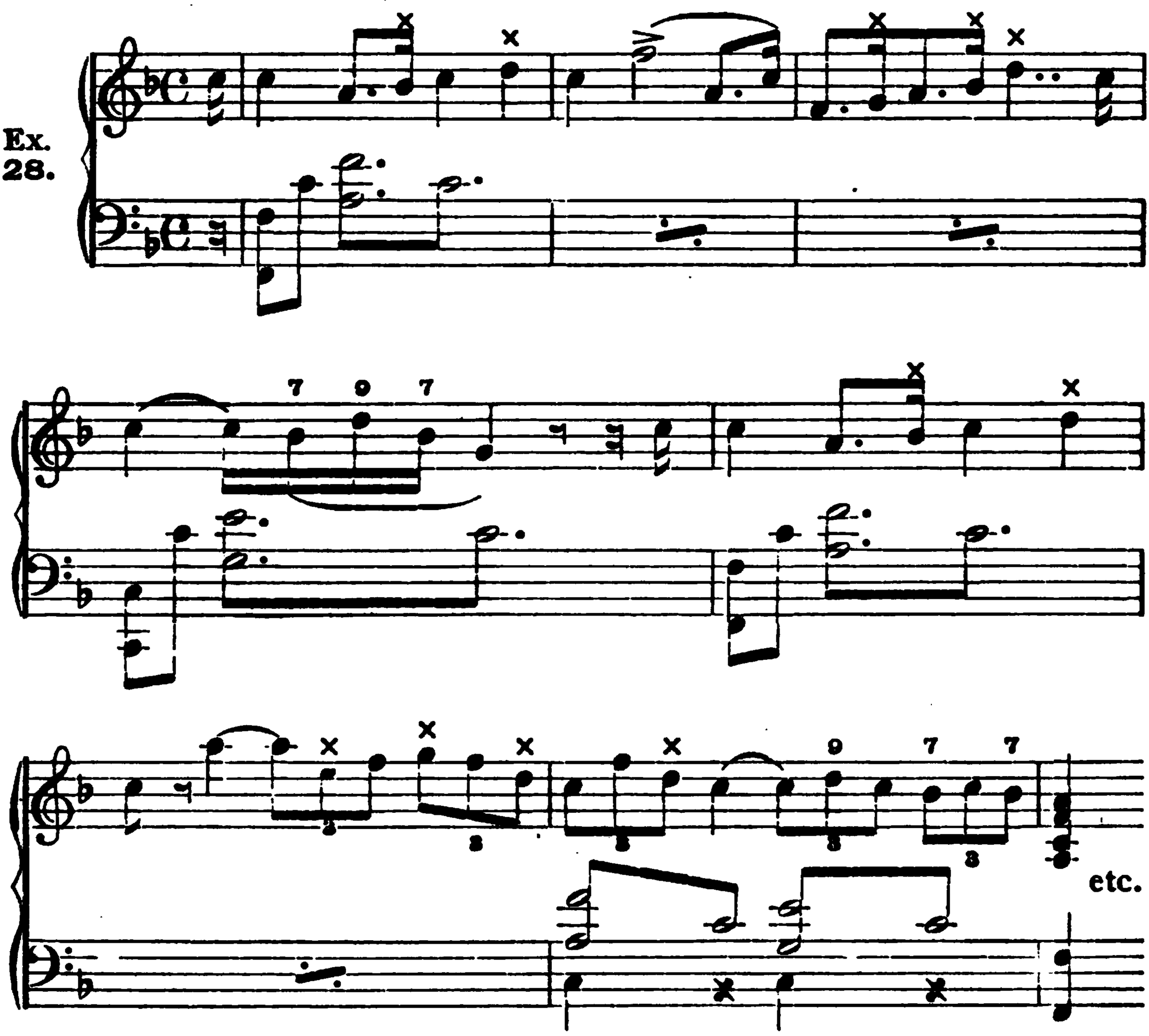


From MASCAGNI'S *Cavalleria Rusticana*
(trans. from orchestration).

Ex. 26.



From BIZET'S *Carmen* (transc. from orchestration).

Ex. 27.

From BELLINI'S *Norma* (transc. from orchestration).

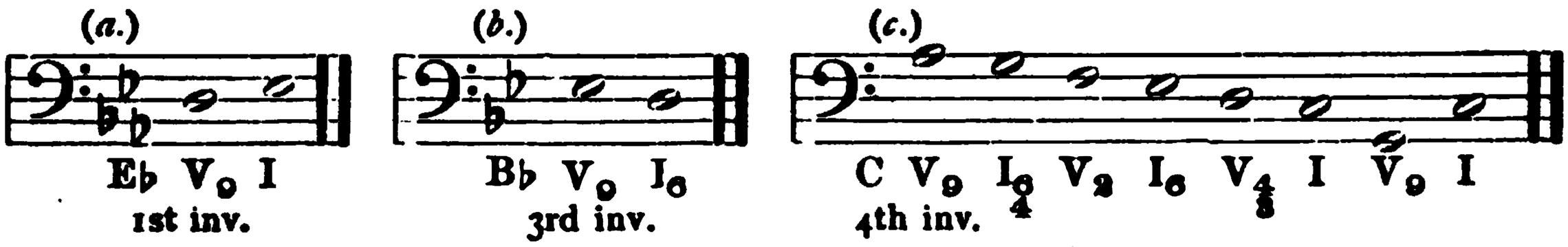
Ex. 28.

EXERCISES, GROUP 5.

1. Resolve the dominant seventh chord in its first inversion (V^{3}_{5}) to the tonic triad in all major keys.

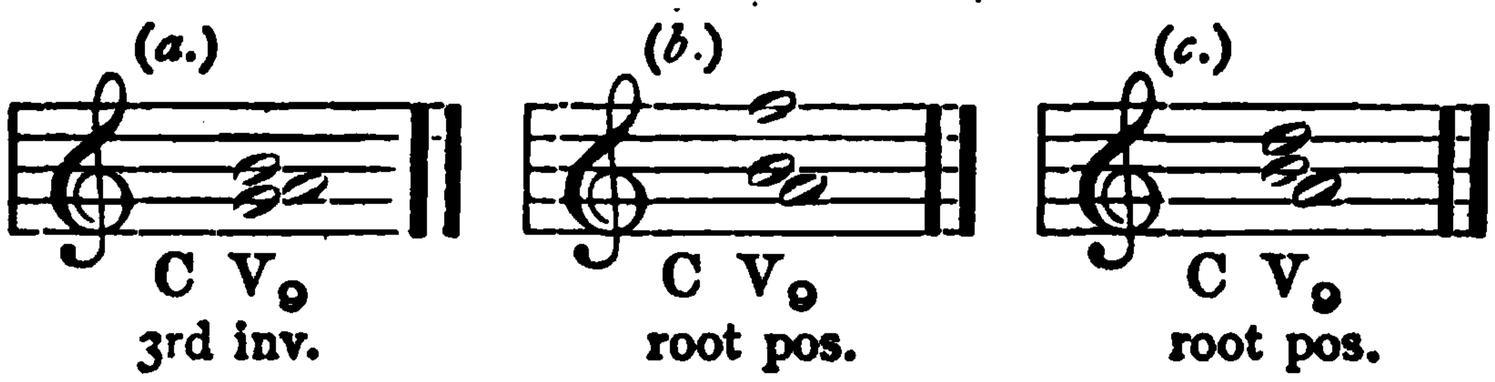
2. Resolve the dominant seventh chord in its second inversion (V^{4}_{3}) to the tonic triad in all major keys.

3. Resolve the dominant seventh chord in its third inversion (V_{2}) to the tonic triad (I_{6}) in all major keys.

4. Fill in the upper voices in the following progressions:



5. To the following three-voice chords, add two more voices (tenor and bass) and resolve them to five-voice tonic chords:



6. Reharmonize the exercises in Group I, page 8; use the dominant seventh or ninth chord in the first inversion in the penultimate measure of each exercise.

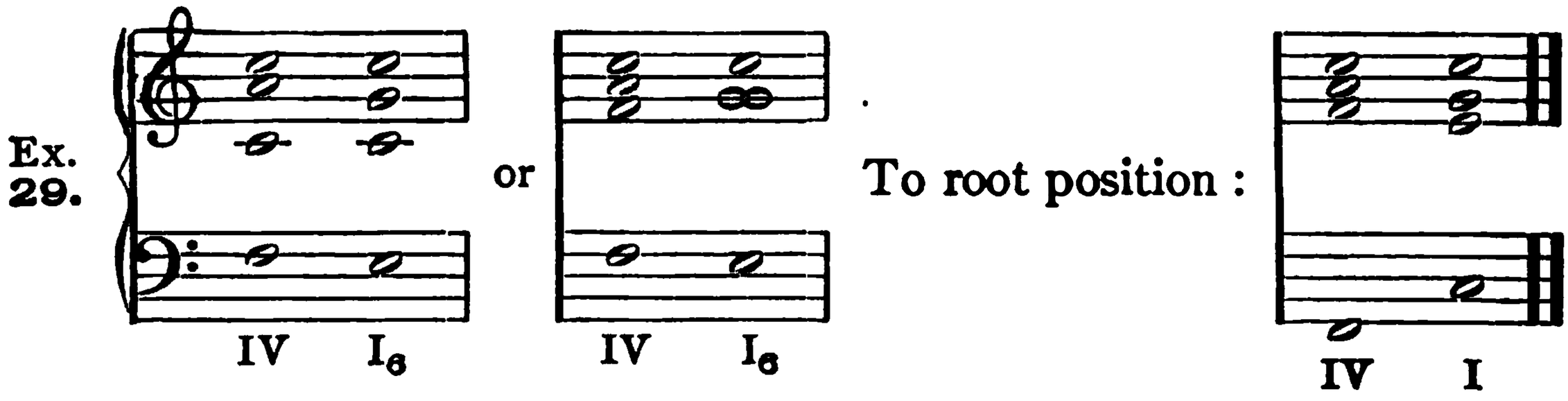
CHAPTER IV.

THE SUBDOMINANT CHORD.

The fourth and sixth scale steps do not, of course, always follow their normal tendency. They may progress upward diatonically or they may progress by skip. Neither is it obligatory nor sometimes advisable to harmonize these tones with dominant harmony even when they follow their normal tendency.

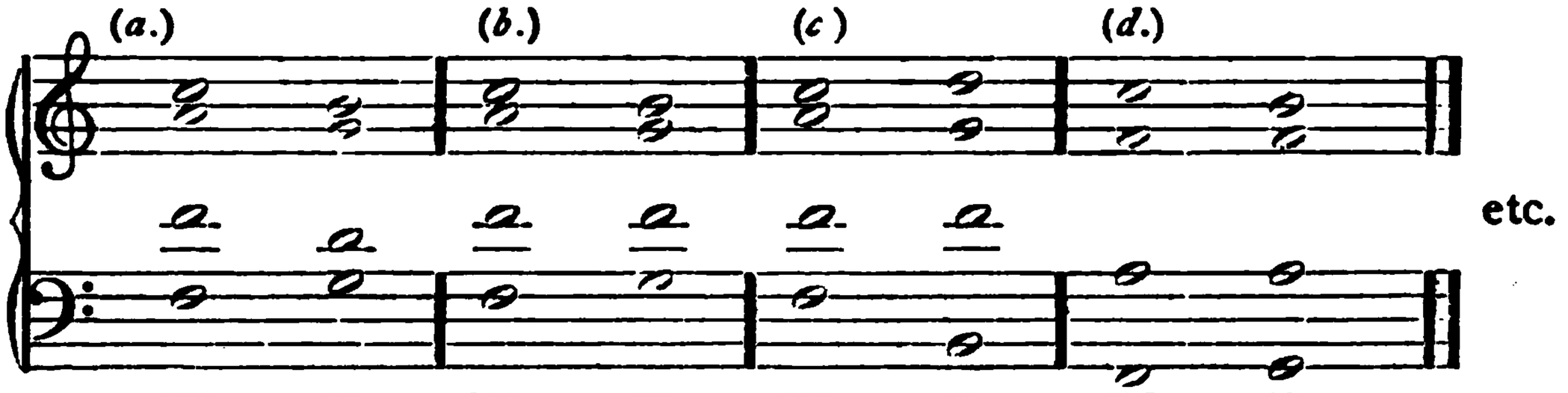
There are two important chords with which both the fourth and sixth scale steps may be harmonized, namely the subdominant chord and the supertonic chord, the first of which is to be considered in this chapter.

The subdominant triad is, like the tonic and the dominant triads, a major triad and consists of root (fourth scale step) its major third and its perfect fifth. It is a consonant chord but not final, although it has not the definite activity which characterizes the dominant triad. Its root and third are the active fourth and sixth scale steps respectively. We would, therefore, deduct that the logical progression of the subdominant triad would be to the tonic triad, thus:



The last progression in the above example is often appended at the close of hymns and called the Amen Cadence or the Plagal Close. Common use in other connections has given the subdominant triad flexibility and the above progressions are, by no means, the most common.

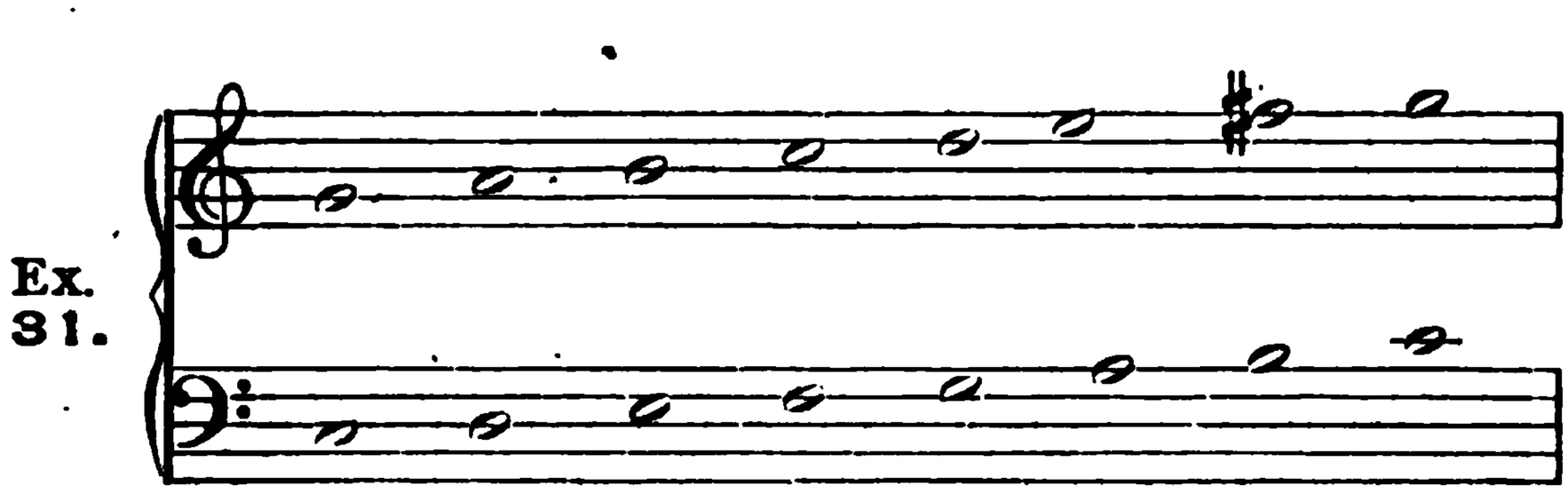
A more idiomatic progression of the subdominant triad is its progression to the dominant chord. Various progressions of IV–V are shown in the following example.

Ex. 30.

IV V IV V_7 IV V_5^6 IV V_9

The student will notice that in the progression to the dominant triad there is no common tone; this is always the case where the roots of chords are situated a second or a seventh apart and in such progressions objectionable "fifths" and "octaves" frequently arise.

Consecutive fifths are objectionable because they often sound harsh and primitive. Cherubini thought the reason for this harshness was due to the fact that "the upper part progresses in one key while the lower moves in another. For example, if to the scale of C an upper part be added which gives a perfect fifth at each measure, thus:

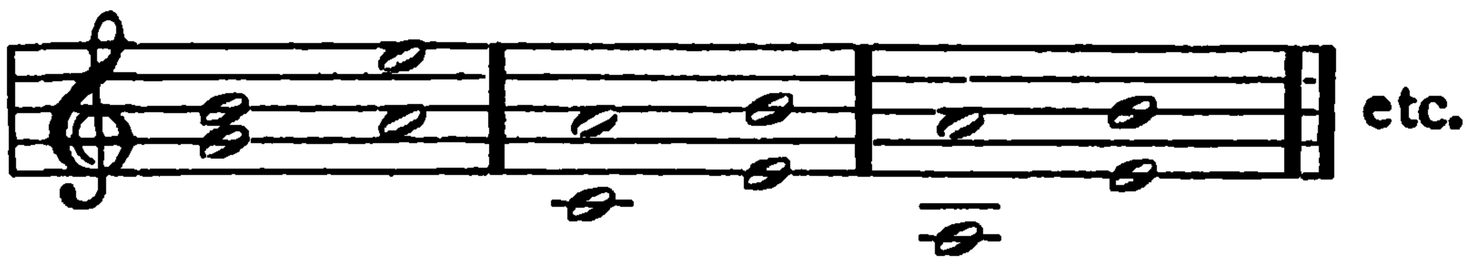
Ex. 31.



it follows that one part will be in C, the other in G. It is from this concurrence of two keys that the discordance arises, and, consequently, the prohibition to introduce several fifths in succession; as, even when the movement of the parts, instead of being conjunct, is disjunct, the discordance none the less exists." Consecutive fifths have been used effectively by great composers but should be avoided by the student.

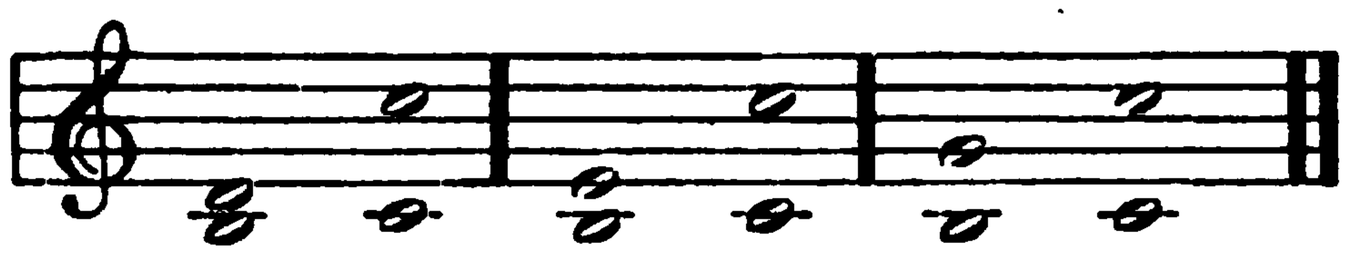
Concealed fifths, objectionable because they sound similar to consecutive fifths, arise when any two voices progress from any interval other than a fifth in parallel motion to a perfect fifth, thus:

Ex. 32.



Consecutive octaves and unisons are objectionable only because their use converts a four voice progression into a three voice progression with one of the melodies doubled.

Concealed octaves, objectionable because they sound similar to consecutive octaves, arise when any two voices progress from any interval other than an octave in parallel motion to an octave, thus:

Ex. 33.

etc.

Obviously, in orchestral writing, consecutive and concealed octaves and unisons abound through the reinforcement of melodies and chord factors by one or more instruments. The same is true, in a lesser degree, of pianoforte, sextet and quintet composition.

Concealed fifths and eighths arising between chords having a common tone are not, as a rule, objectionable, although, for the present, it is usually advisable (where practical) to avoid them, especially in outer voices. Harmonic spacing, voice leading and compass should not, however, be sacrificed to this principle.

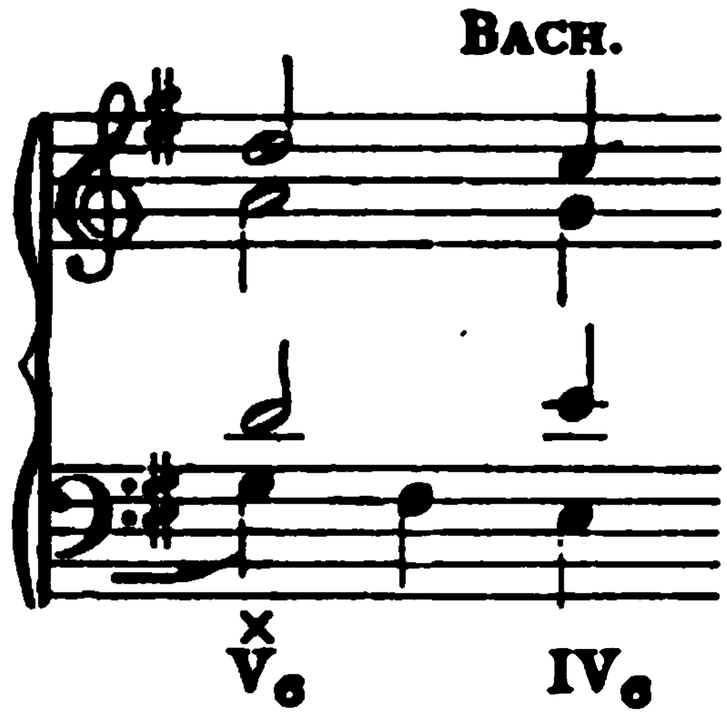
Consecutive fifths and octaves are avoided between two chords in root position, the roots of which are situated a second or a seventh apart, by leading the upper voices in contrary motion to the bass. Consecutive fifths and octaves may also be advantageously avoided by doubling some factor other than the root in one or both of the chords of the progression. Factors having strong tendency such as the leading tone, sevenths and ninths in chords, it will be remembered, should not be doubled in four-part writing.

Like the tonic and dominant triads, the subdominant triad has two inversions, the first inversion being the one more frequently used. The second inversion is subject to the same restrictions as the $V\frac{6}{4}$.

The three triads which have been considered are the only major triads in the major mode. They comprise all the tones of the major scale and are therefore sufficient to harmonize any diatonic melody. They are often called the Principal Triads also the Primary Triads. Pages in standard works can be found containing few, and, in some cases, no other chords than those thus far considered.

As a guidance to logical harmonizations of diatonic melodies with the vocabulary of chords thus far given, the following text will serve.

The tonic (*do*) may be harmonized with either the tonic or the subdominant triad. When the tonic is repeated the harmony may change. As first or last tone of a melody, *do* should be harmonized with the tonic triad. It should usually be harmonized with the tonic triad when it is preceded by dominant harmony. This principle arises from the fact that dominant harmony followed by subdominant harmony is seldom effective, although such a progression is found in the works of standard writers.

Ex. 34.

The supertonic (*re*) is harmonized with dominant triad, seventh or ninth chord.*

The mediant (*mi*) is harmonized with tonic harmony.

The subdominant (*fa*) wherever it descends diatonically may be harmonized with dominant seventh or ninth chord (see footnote below). It may be harmonized with subdominant harmony in all its progressions.

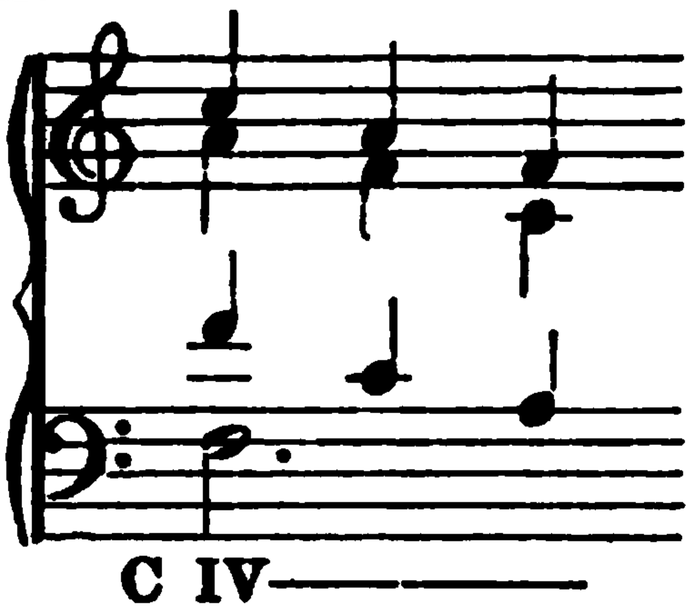
The dominant (*so*) may be harmonized with either tonic or dominant harmony. When *so* is repeated the harmony may change.

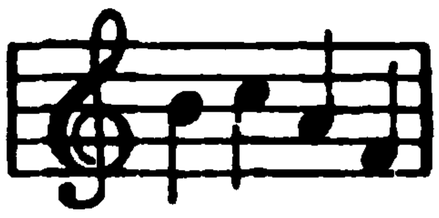
The superdominant (*la*) wherever it descends diatonically may be harmonized with dominant ninth chord (see footnote below). Otherwise it should be harmonized with subdominant harmony.

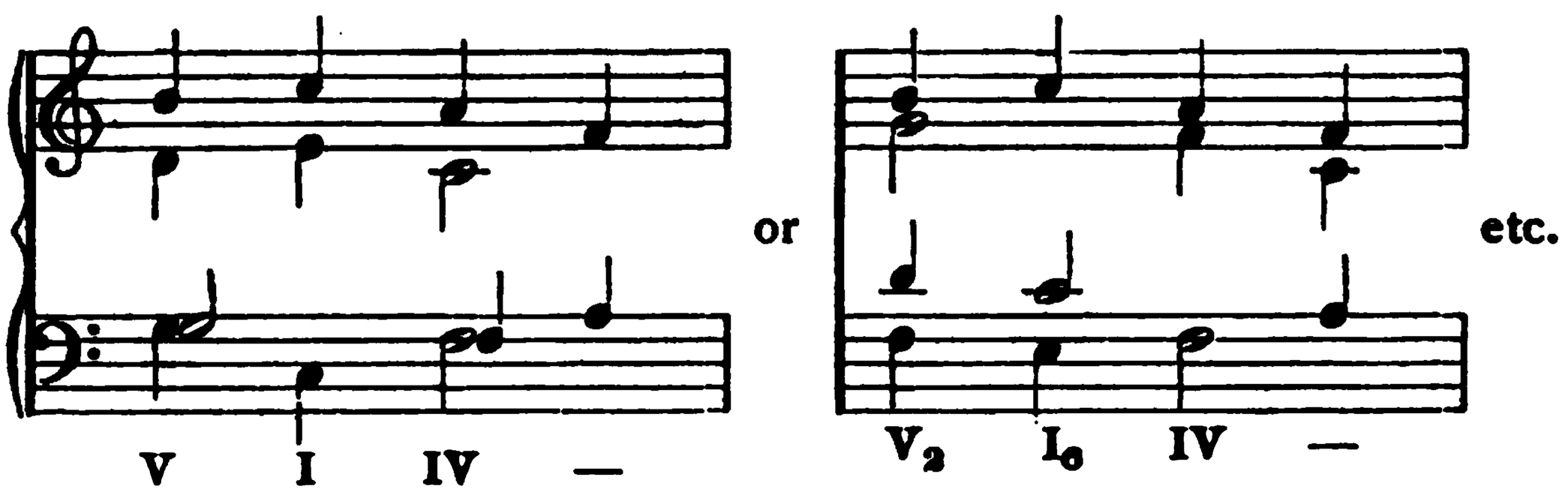
The leading tone (*ti*) is harmonized with dominant harmony.

Tones which skip in a melody are usually harmonized with the same harmony although this cannot now be as successfully done as later when the student has the complete vocabulary of chords.

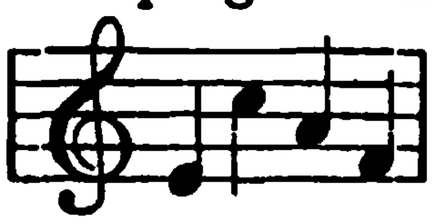
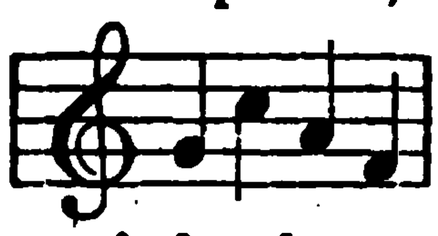
Ex. 35.



In cases similar to the following an exception is made. *Do* may be harmonized with tonic harmony in the above melody because of the ineffectiveness of progression V–IV. The above melodic fragment would therefore be harmonized as follows: V–I–IV–IV.

Ex. 36.

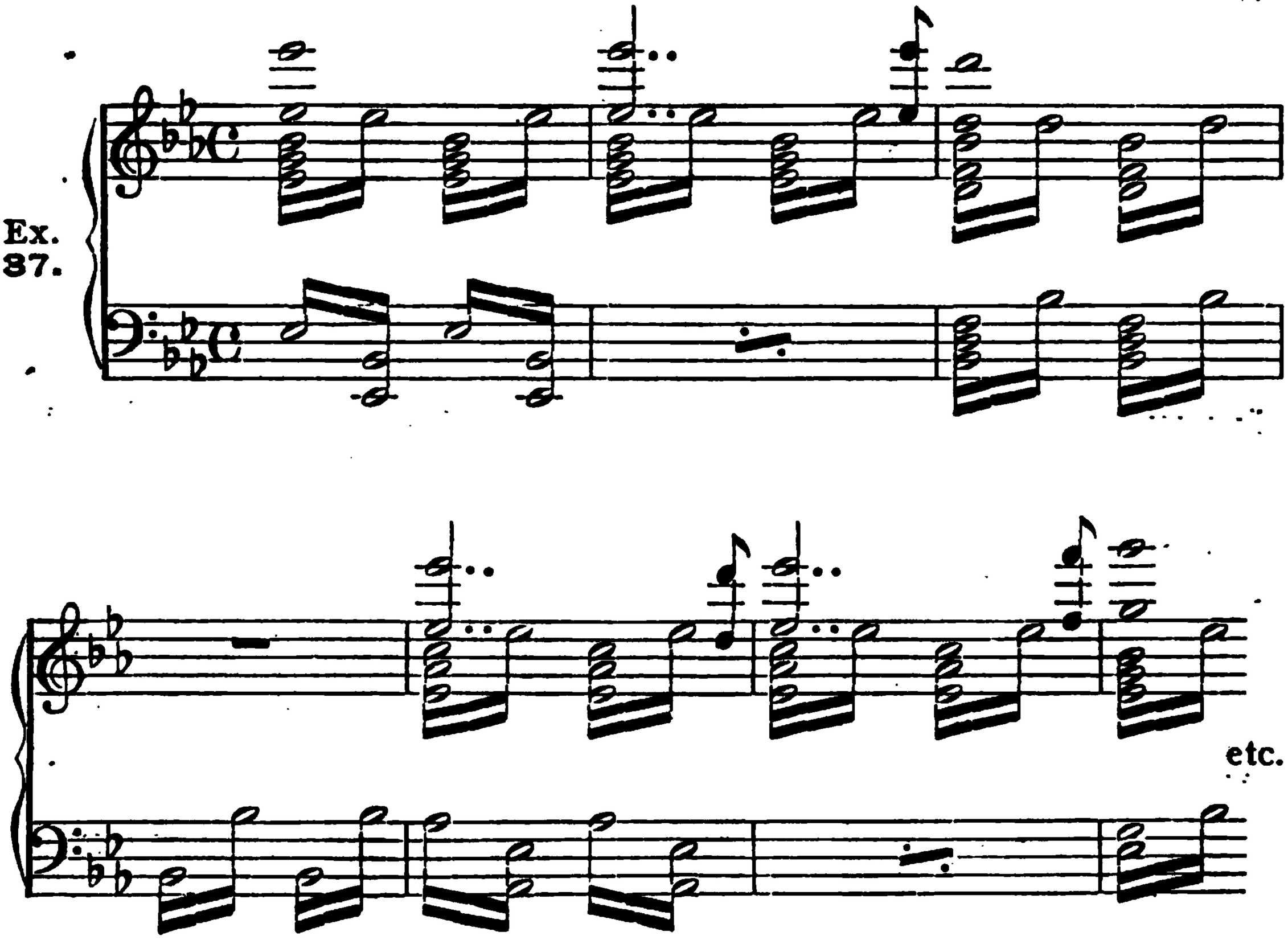


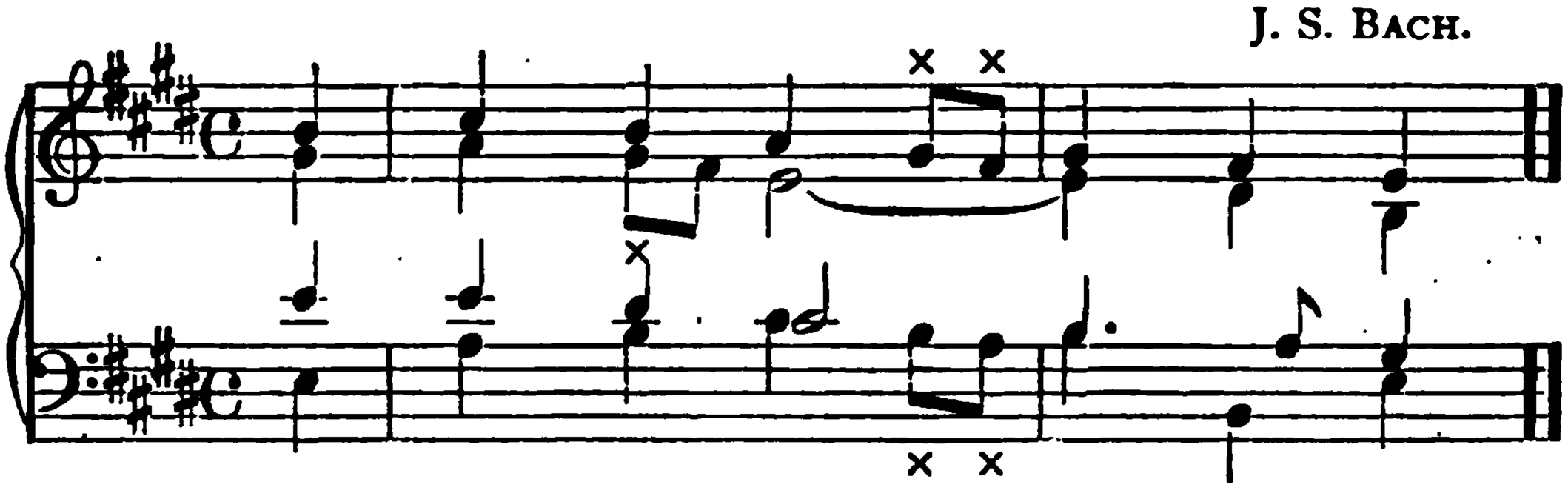
*Because of the finality of the resolution to tonic of the dominant seventh and ninth chords, it is preferable to use these chords sparingly except as the penultimate chord of a period.

Passages with skips frequently occur where all the tones of the skips do not belong to the same chord in which case, they must be grouped logically. Principles of phrasing and good chord progression govern such passages. For example, the following melodic fragment: can be harmonized as follows: I–IV–IV–IV or I–I–IV–IV. If a new phrase commences upon the second quarter note, the former harmonization is available; if a new phrase commences upon the third quarter, the latter harmonization is preferable; if the fragment is in the midst of a phrase, either harmonization is available. The following melodic fragment: is governed not only by phrase consideration but by the consideration of chord progression. In the midst of a phrase, *do* should be harmonized with tonic harmony if the preceding *so* is harmonized with dominant, but if *so* is harmonized with tonic harmony, *do* may be harmonized with subdominant. If a new phrase commences on *do* and *so* finishes a preceding phrase on the dominant chord, *do* may be harmonized with subdominant.

In a progression of successive sixth chords, it is usually advisable to double the third in alternating chords and the root in the remaining chords. Fifths may be doubled in such a progression if voice leading profits thereby.

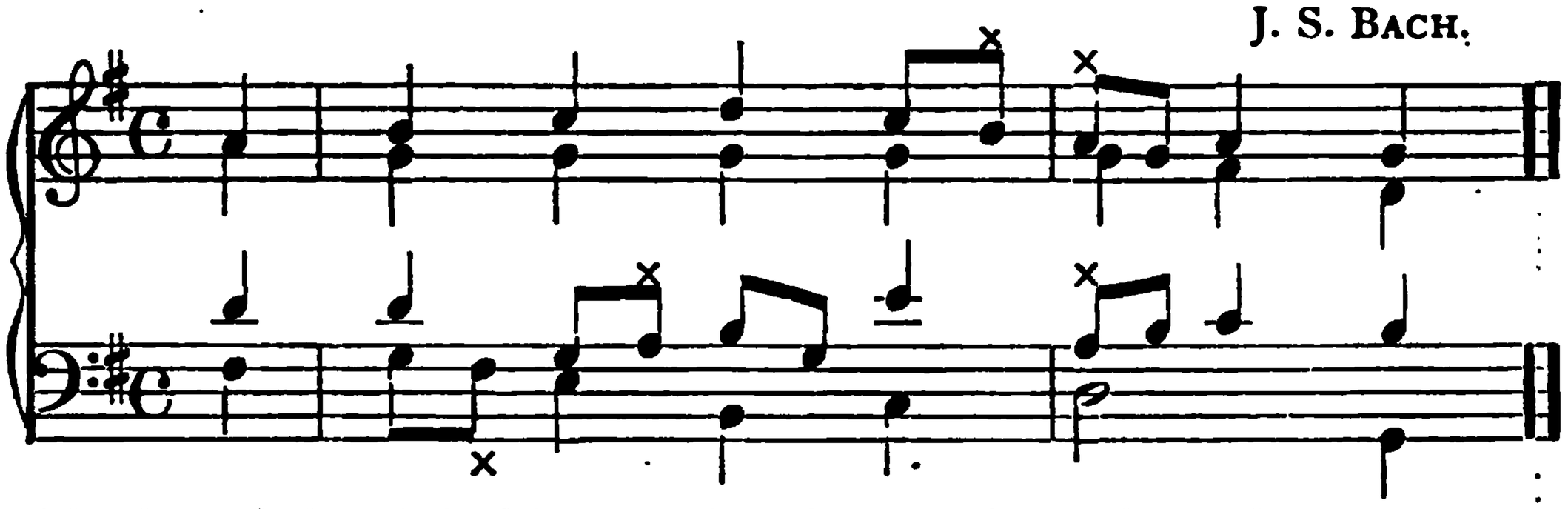
The following quotations should be carefully studied.

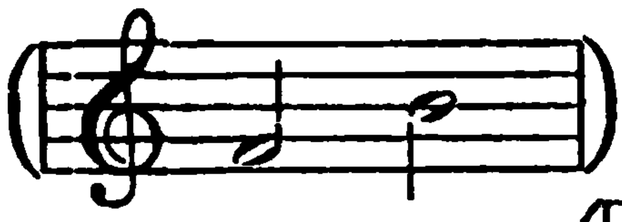
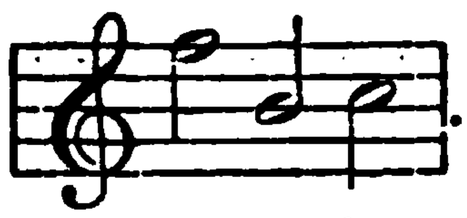
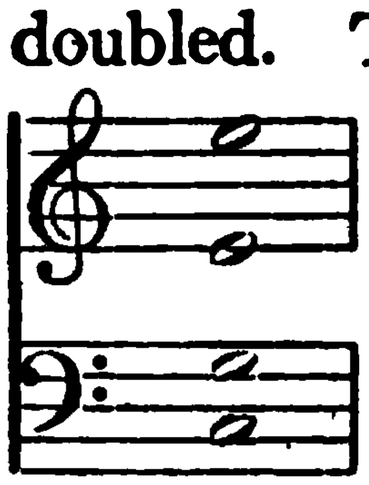
BELLINI'S *Norma.*

Ex. 37.

Ex. 38.



Ex. 39.

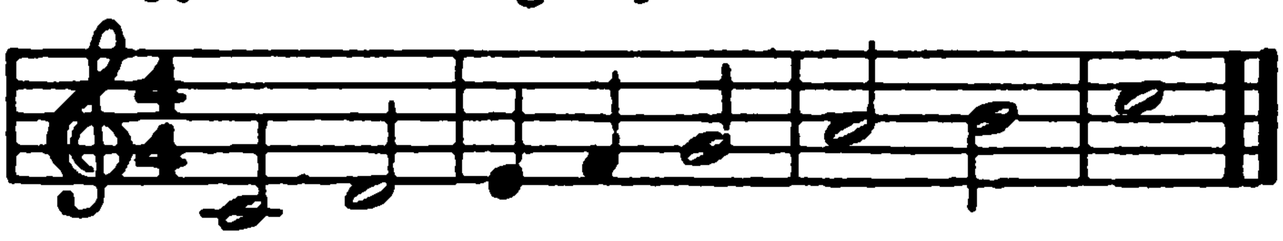


At this time, it is advisable to write almost wholly for voices, soprano, alto, tenor, and bass. In this style of writing, dispersed harmony (open position) is available as well as close position (see footnote, page 5). The inner voices should be made as melodically interesting as is compatible with good chord progression and coherence. The bass should be "flowing," that is, not too "skippy." This necessitates the frequent use of inversions. Augmented skips should be, for the present, avoided in all the parts; diminished skips however, are good. The second tone of a diminished skip should usually resolve within the skip stepwise: . The common tone need not be retained unless desired. Watch for "fifths" and "octaves." Remember that the root is the factor most frequently doubled, next the fifth, then the third; the leading tone, sevenths, and ninths are not to be doubled. The following arrangement with doubled third is good:



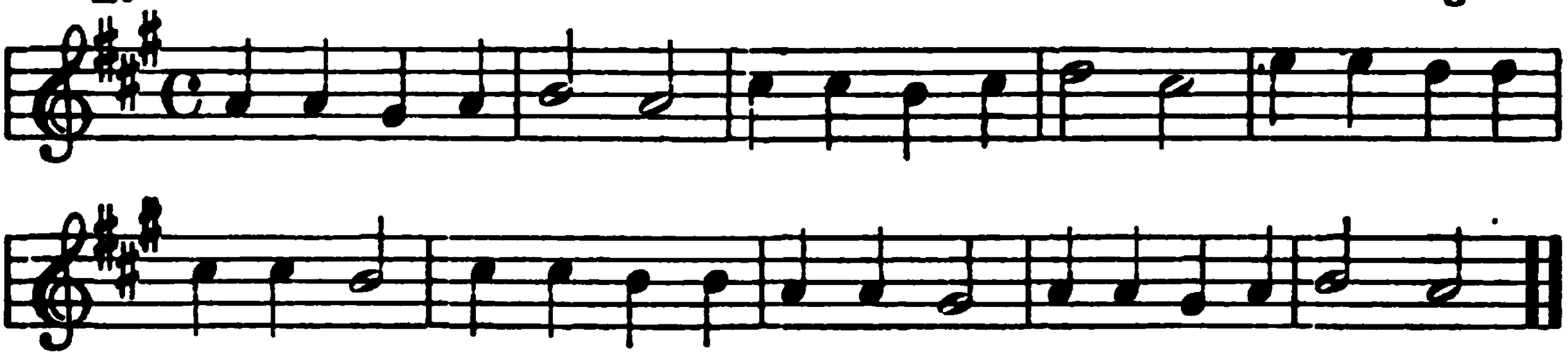
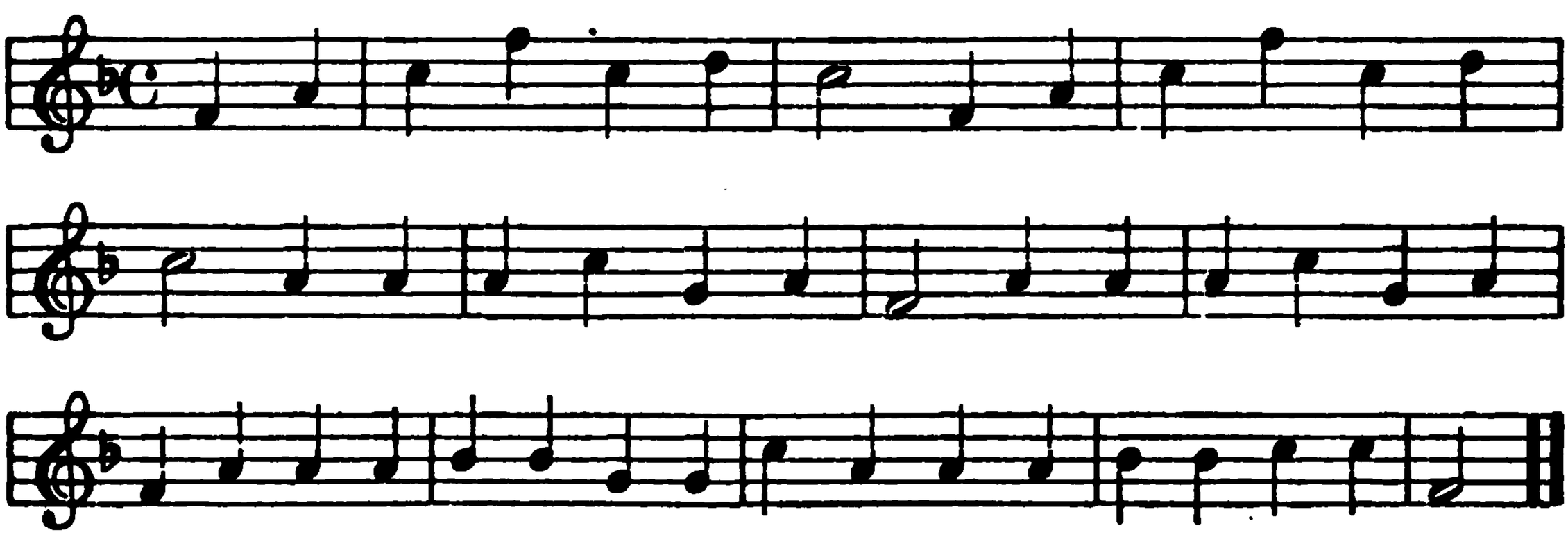
It is advisable to mark off the phrases in a melody before harmonizing it. A subdominant phrase ending is not often desirable; tonic and dominant phrase endings are available. Because of the finality of the tonic chord, a dominant phrase ending is usually preferable where the melody permits except, of course, upon the last phrase of a period. The dominant triad upon a phrase ending is usually preferable to the dominant seventh or ninth chord.

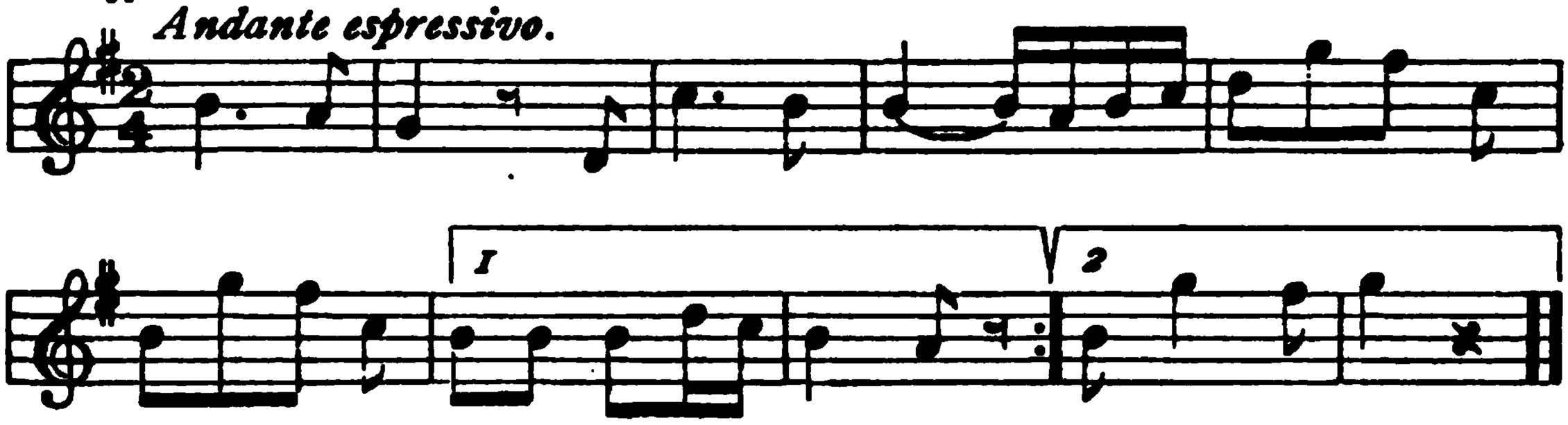
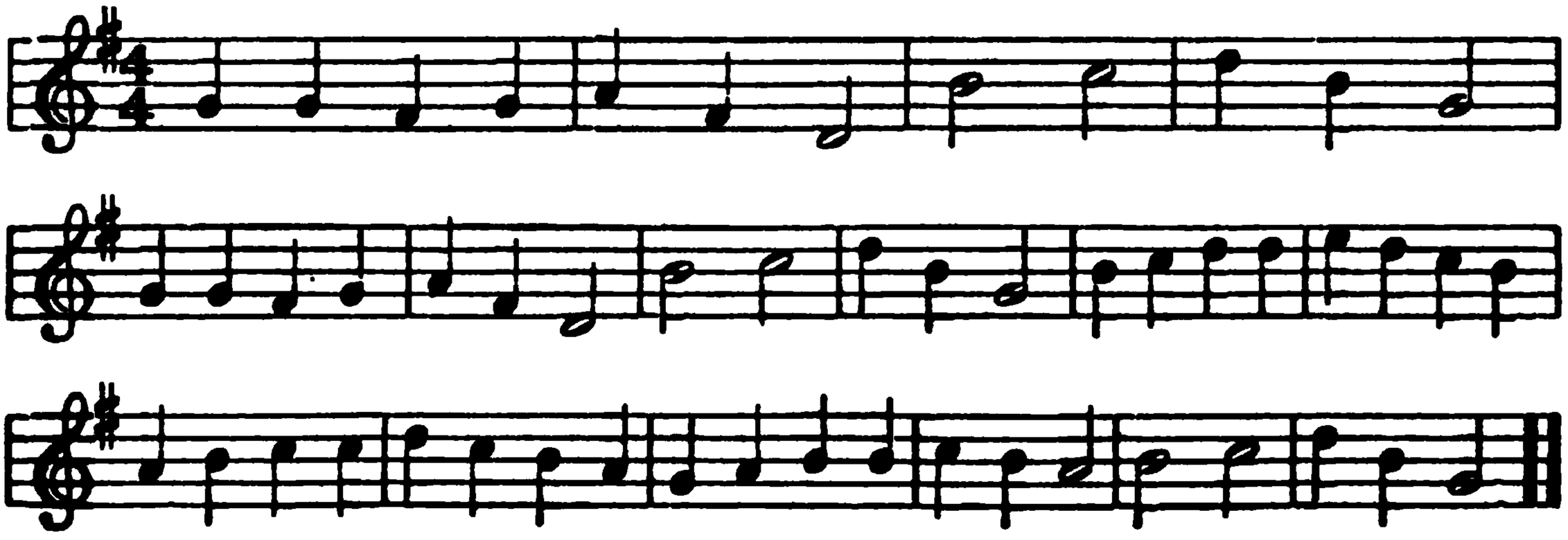
Exercises, Group 6.

1. Ascending major scale.



Transpose to all major keys.

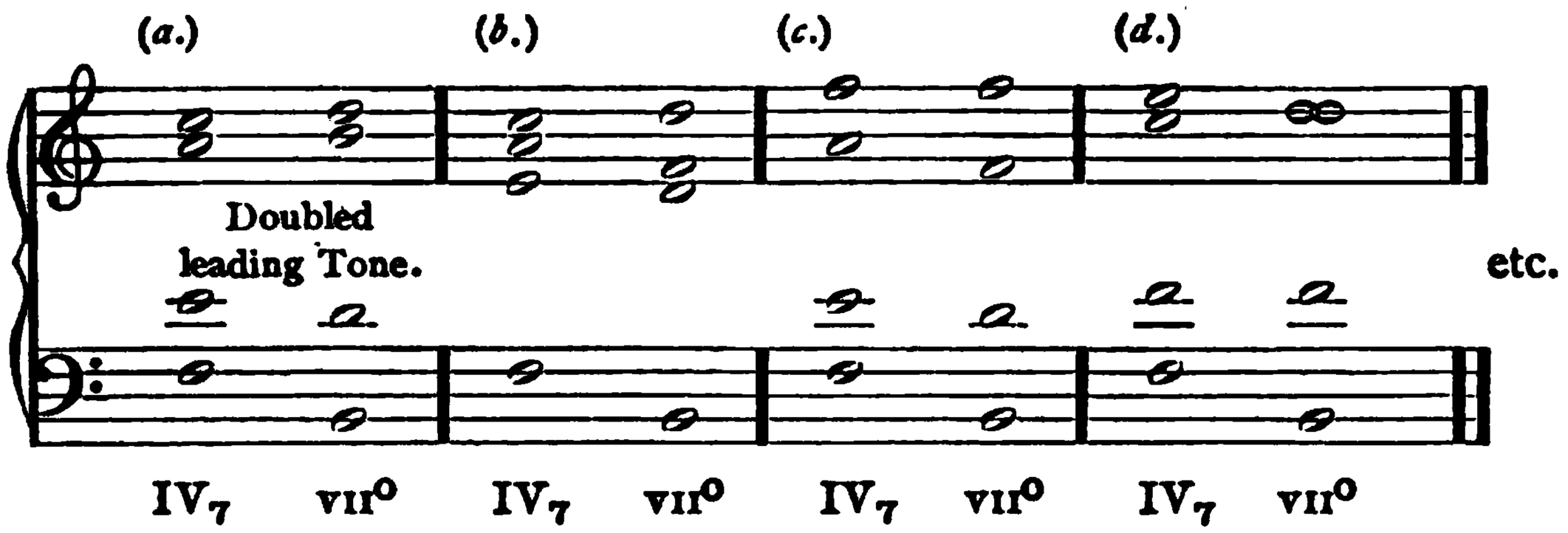
2. German Folk Song.

3. French Folk Song.

4. H. Bertini.

Andante espressivo.

5. English Folk Song.

6. Write the complete Cadence (IV V I) in all major keys (see *Cadences*, page 1). Use sometimes the dominant triad, sometimes the seventh, and sometimes the ninth.

The student should compose several diatonic melodies, paying attention to phrase grouping and balance, to the judicious mixing of stepwise progression with skips, to voice compass, etc. Be sure that each melody is "singable." These melodies should then be harmonized.

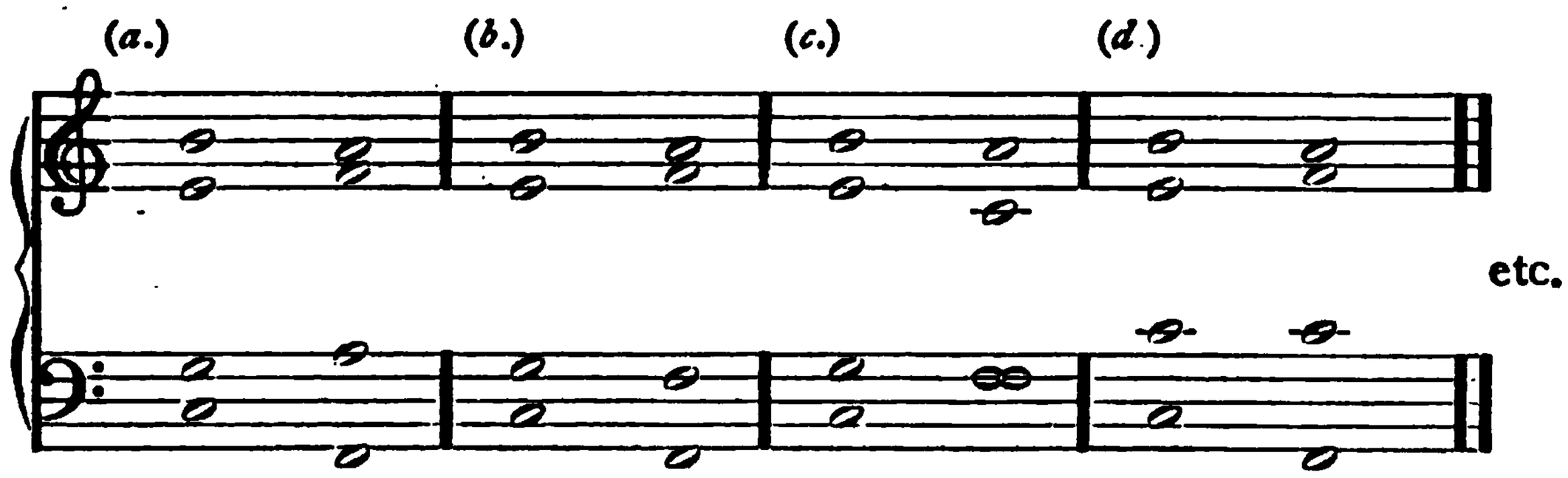
The subdominant seventh chord is an uncommon chord. It is a major seventh chord and therefore a harsh dissonant. Its cadencing resolution is not very satisfactory.

Ex. 40.



This chord is not available at present.

The tonic seventh chord is constructed like the subdominant and the above remarks are applicable to the tonic seventh chord. Its cadencing resolution, however, is somewhat less unsatisfactory.

Ex. 41.

Major seventh chords occur more frequently as passing chords or as a result of passing tones than as a part of the harmonic architecture. Unaltered tonic and subdominant ninth chords are even less useful than the seventh chords.

The first seven exercises in Appendix C may now be worked out by those desiring to work with given bass.

CHAPTER V.

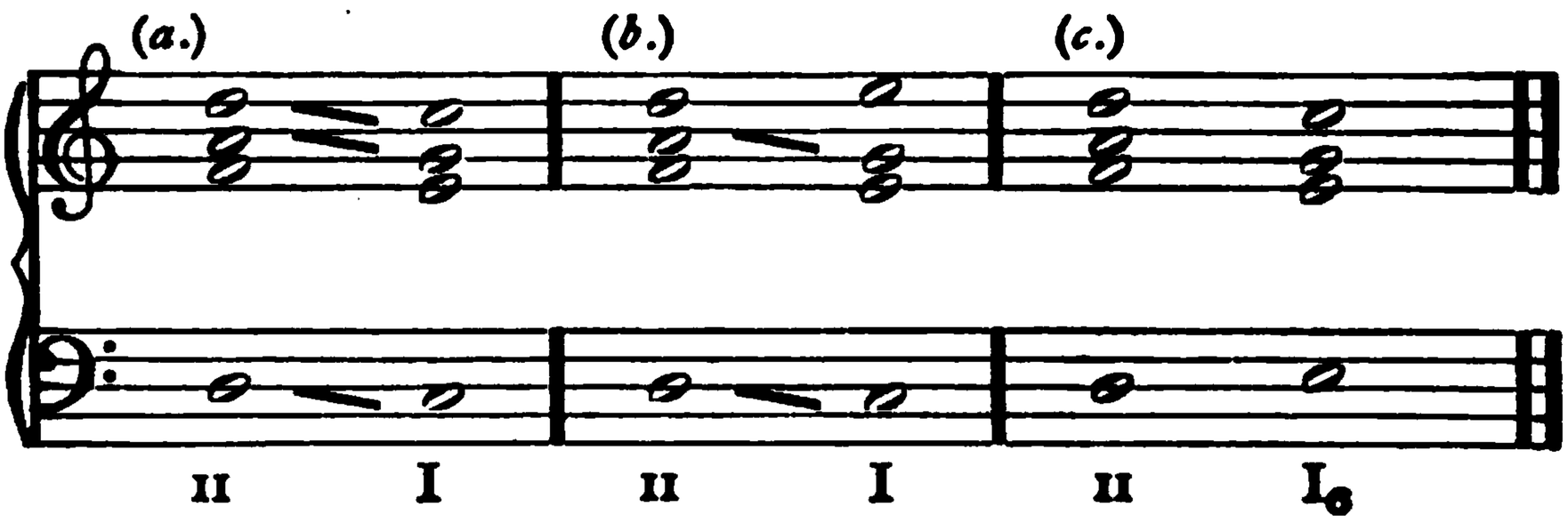
THE SUPERTONIC CHORD.

In this chapter we enter upon the study of the first chord belonging to the so-called "secondary" chords.

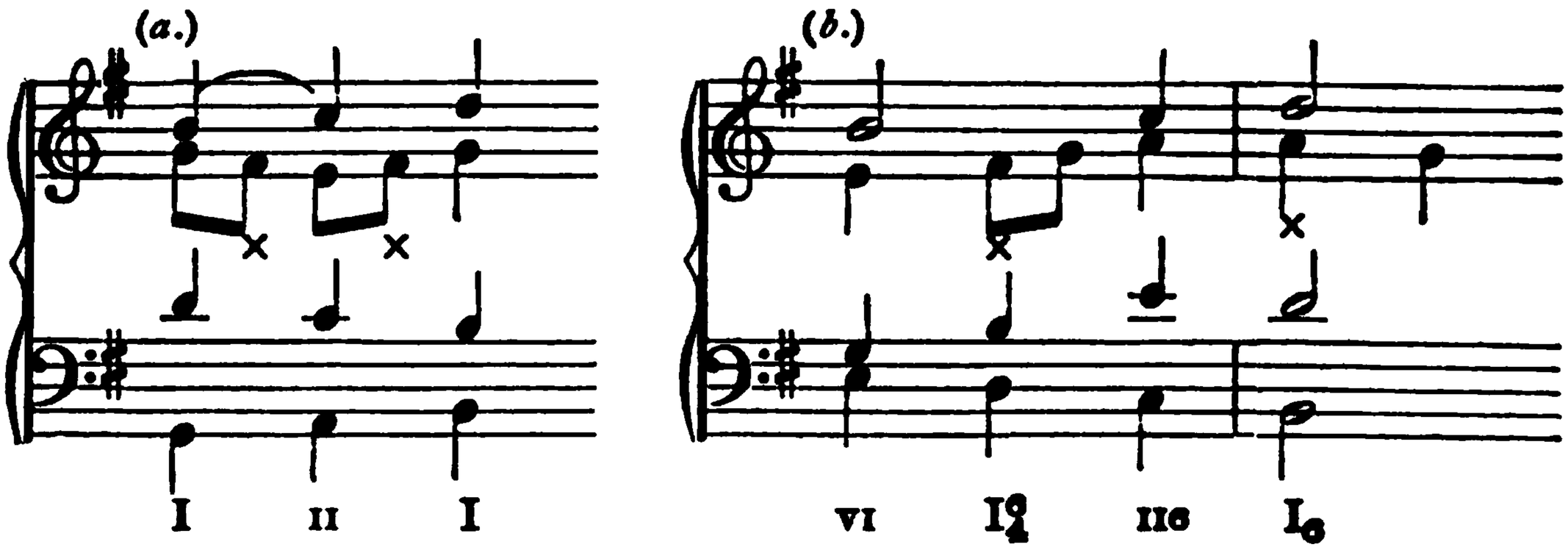
The secondary chords may be grouped into three main "families," the three being called by the same names as the three principal chords, namely, tonic, dominant, and subdominant. The supertonic chord belongs to the subdominant family.

The supertonic triad differs in structure from the three triads heretofore considered. It consists of root (*re*) its minor third and its perfect fifth and is called a *minor triad*. It is a consonant* chord but active. Like the preceding triads, the root or the fifth may be doubled, but unlike the preceding triads, factor three may be freely doubled. Doubled thirds in minor triads are better than in major triads. The most effective use of the supertonic chord is with the third in the soprano.

Upon examining the factors of the supertonic triad, we would suppose that its natural tendency would be to the tonic triad, thus:

Ex. 42.

The student will notice that in the first progression, a parallel octave and a parallel fifth result, and in the second progression a parallel fifth and a doubled third in the tonic triad result. The third progression is not faulty although it results in a doubled third in the tonic triad. The following quotations from Bach show good examples of progression II–I.

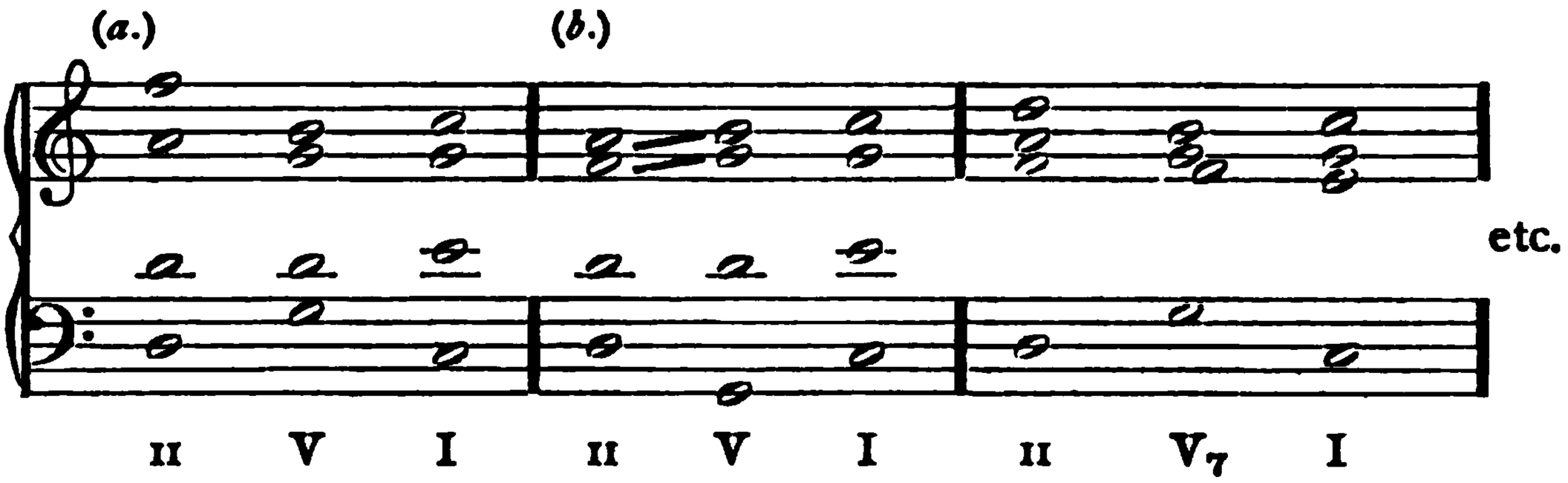
Ex. 48.



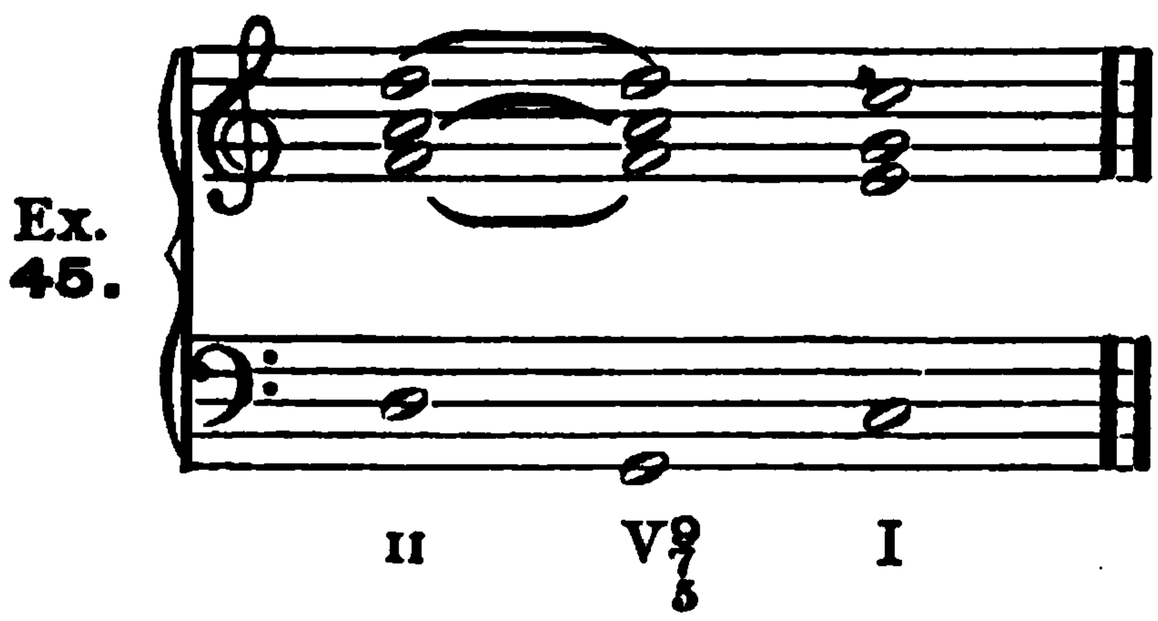
*The minor triad is accepted as a consonance by the modern ear.

A natural progression for a large number of chords is the so-called cadencing progression. This progression is one in which a chord progresses to another chord the root of which is situated a fourth above (or a fifth below) the root of the first chord. This progression of the supertonic chord results in the progression II–V.

The cadencing progression of the supertonic chord is the one most frequently used. Common use has all but upset the scale tendencies of its factors and given the chord as a whole a tendency to dominant harmony which in turn resolves to tonic, thereby simply delaying the scale tendencies of the factors in the supertonic chord.*

Ex. 44.

The following example demonstrates how the factors of the supertonic triad may become factors in the dominant ninth chord by allowing the factors in the upper voices to remain stationary while the root, in the bass, makes the cadencing progression.

Ex. 45.



The idiomatic progression of the supertonic chord to dominant harmony is to the same harmony as the idiomatic progression of the subdominant, thus establishing a relationship between the supertonic and subdominant chords and placing them in the same family group.

The inversions of the supertonic triad are governed by the same principles as the inversions of other chords and therefore need no further explanation.

The exercises in group 6 should be again harmonized. The second scale step (*re*) may now be harmonized with V or II. *Fa* may be har-

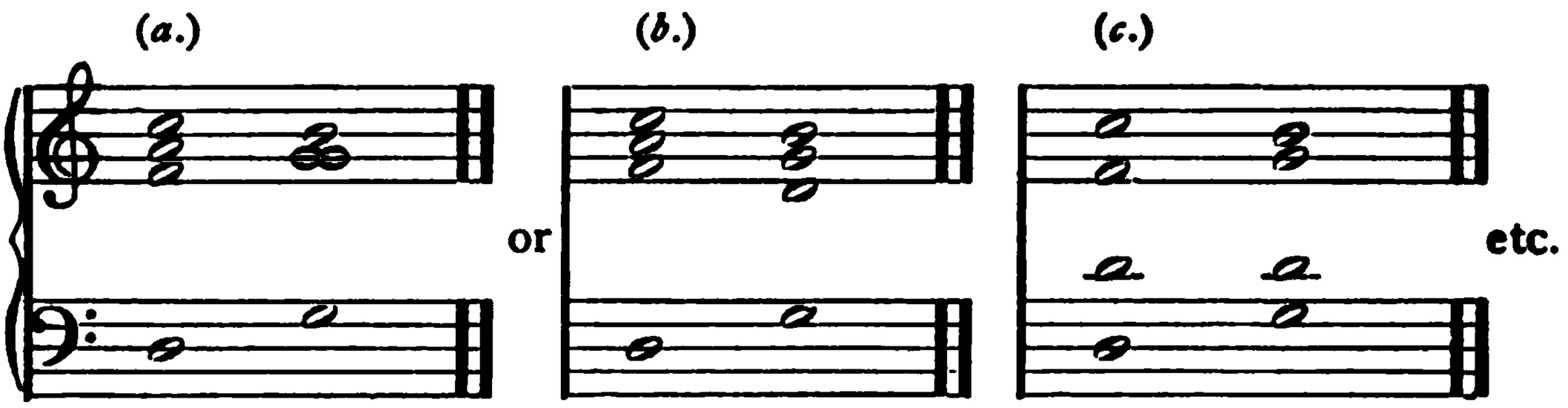
* See Chapter XIII.

monized with V_7, V_o, IV or II according to its progression, position, etc. *La* may be harmonized with V_o, IV or II according to its progression, position, etc.

The Supertonic Seventh Chord.

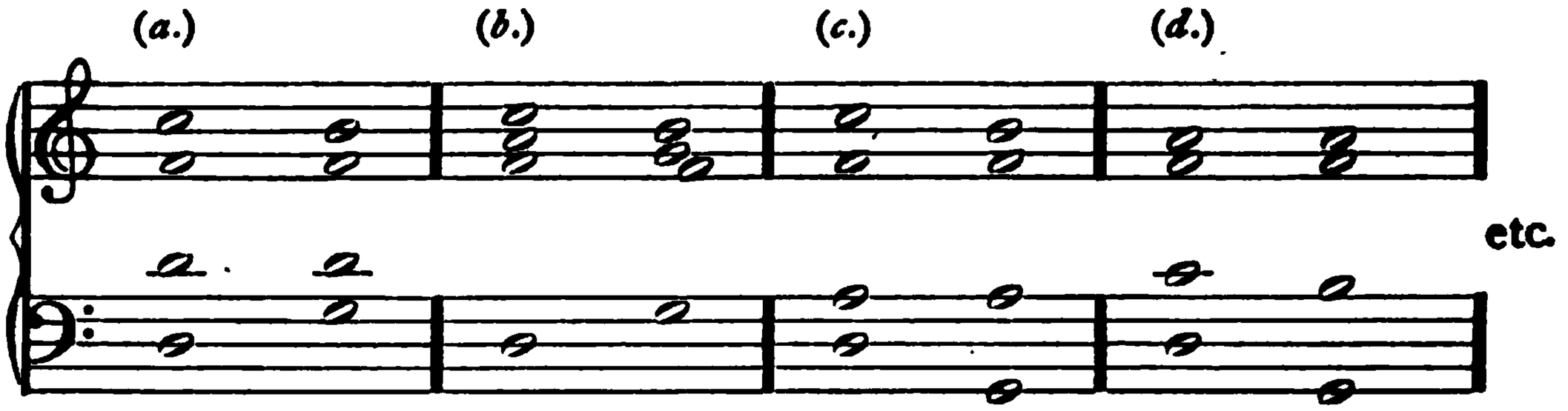
This very useful and commonly used chord is formed by adding the minor seventh of the root to the supertonic triad: It is a dissonant and active chord. Its normal resolution is to the dominant chord (cadencing resolution) and upon paper, *looks* no different from the resolution V_7–I. Its seventh resolves downward diatonically;* its fifth resolves downward diatonically; its third resolves upward diatonically or downward by the skip of a third; its root in an upper voice may remain stationary but in the bass, it makes the cadencing progression.

Ex. 46.

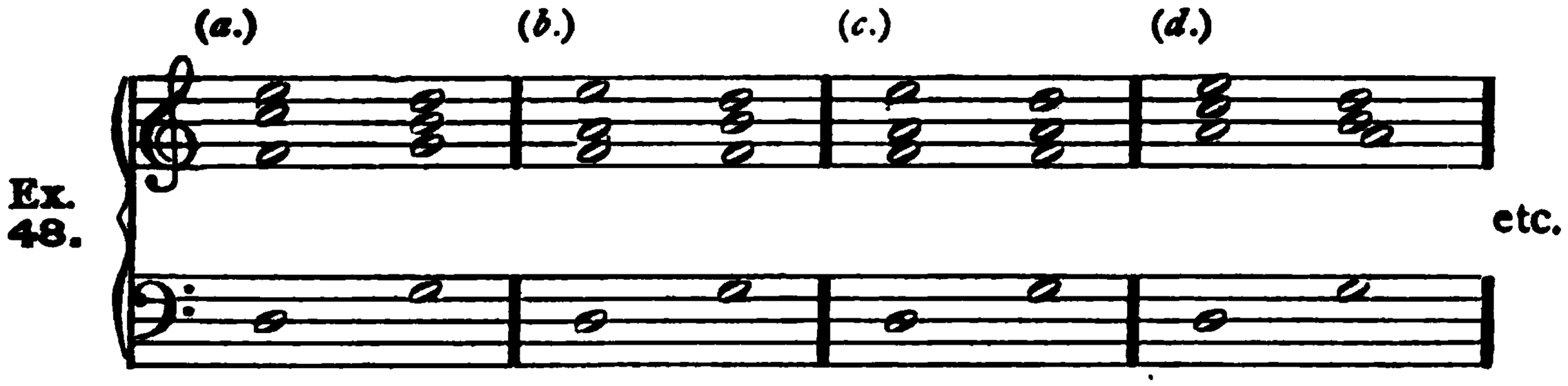


II7 V II7 V II7 V

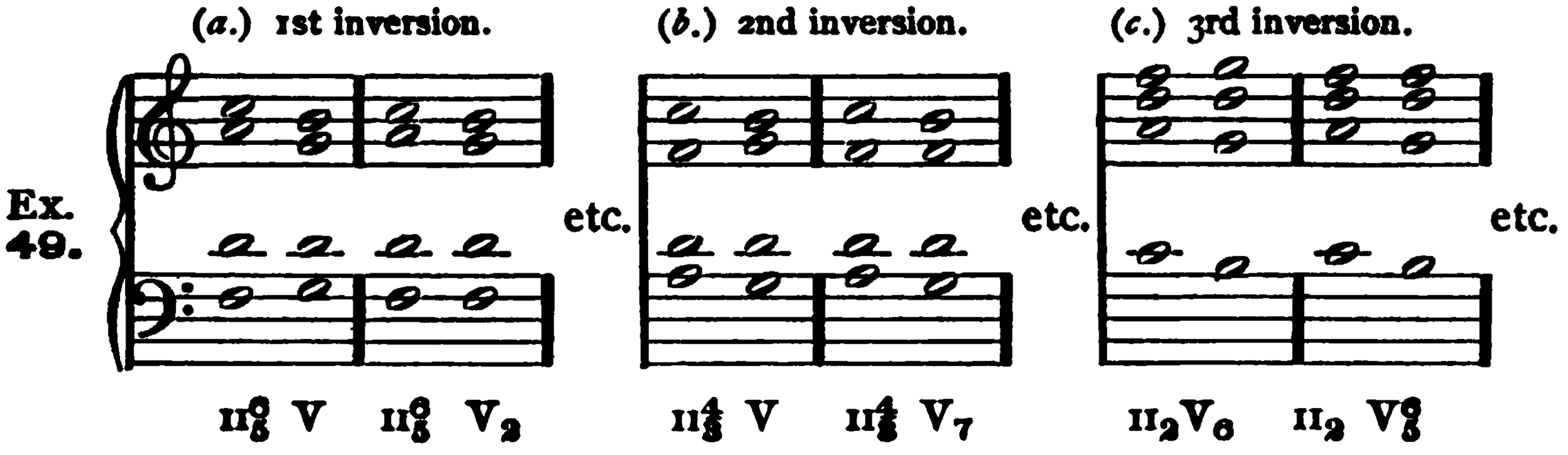
The supertonic seventh chord may also resolve to the dominant seventh or ninth chord.

Ex. 47.

II7 V7 II7 V7 II7 V7 II7 Vo

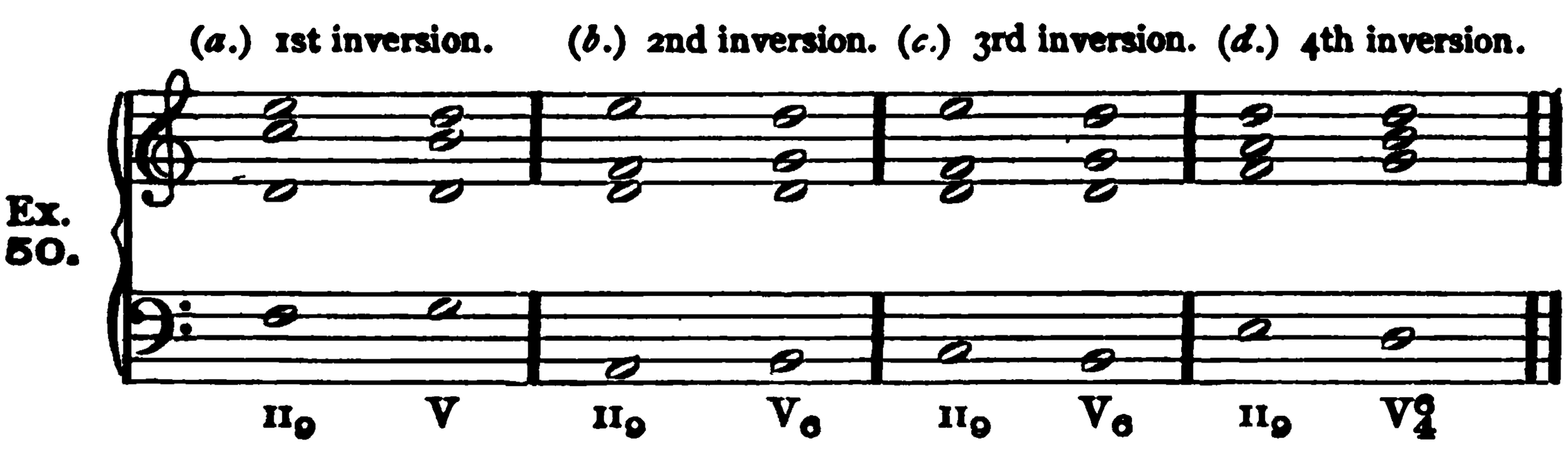
The supertonic ninth chord occurs less frequently than the dominant ninth. Its structure and resolution follow.

*Notice that the seventh in the supertonic chord is the inactive tonic but as a diasonant seventh in the chord, its normal immobility is destroyed and it becomes an active tone with a tendency diatonically downward to the active leading tone.

In a succession of dissonant chords the strongest dissonant chord should usually be on the strongest beat of the measure or be artificially accented.

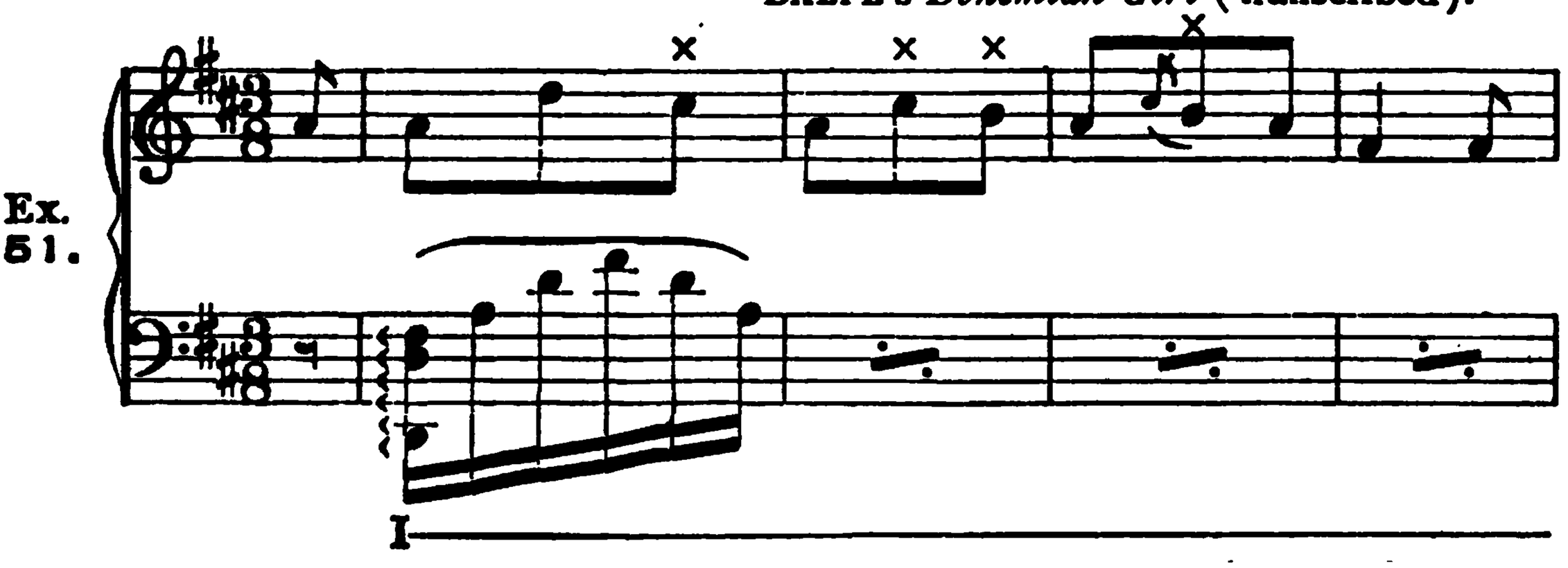
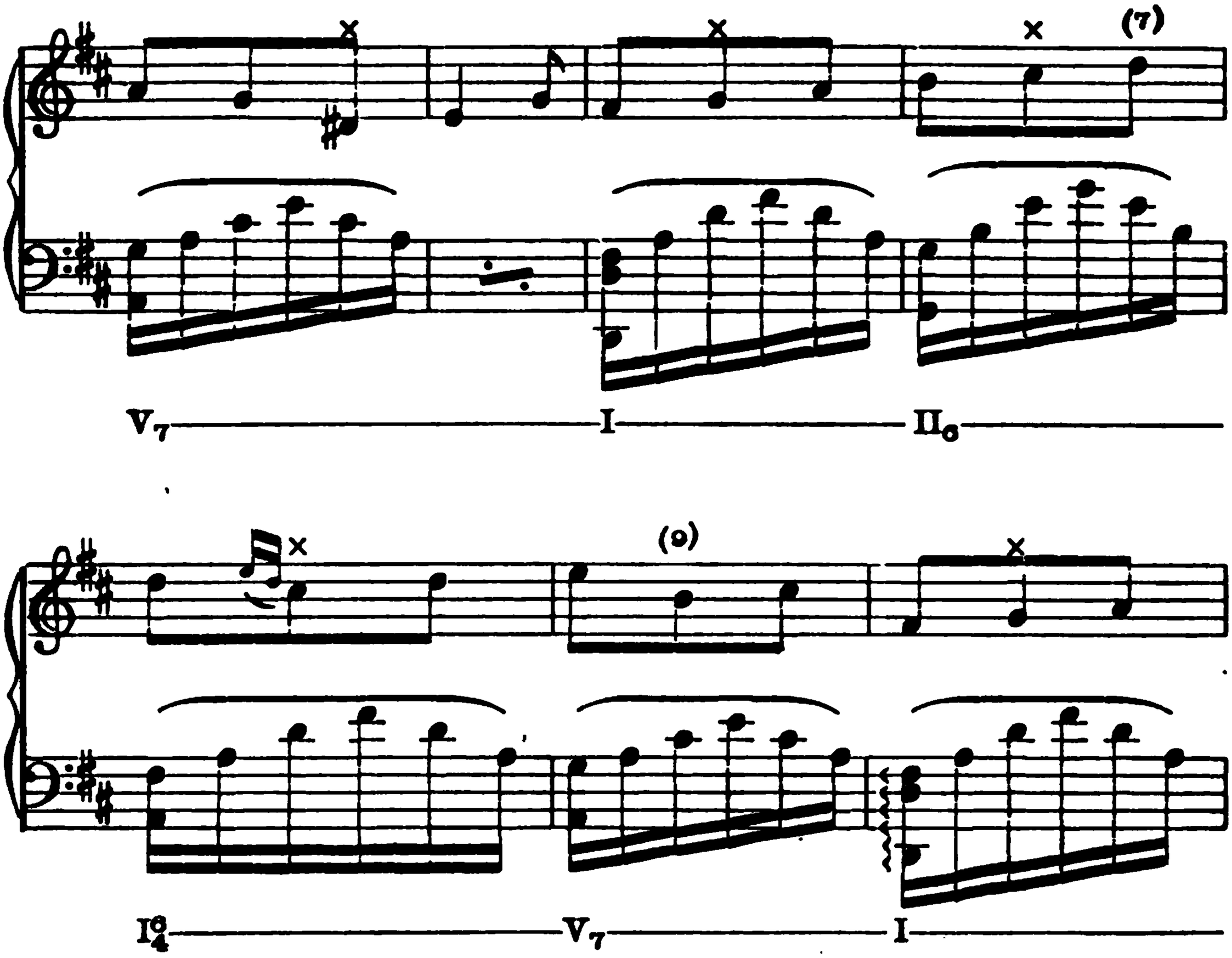
The inversions of the supertonic seventh chord follow:

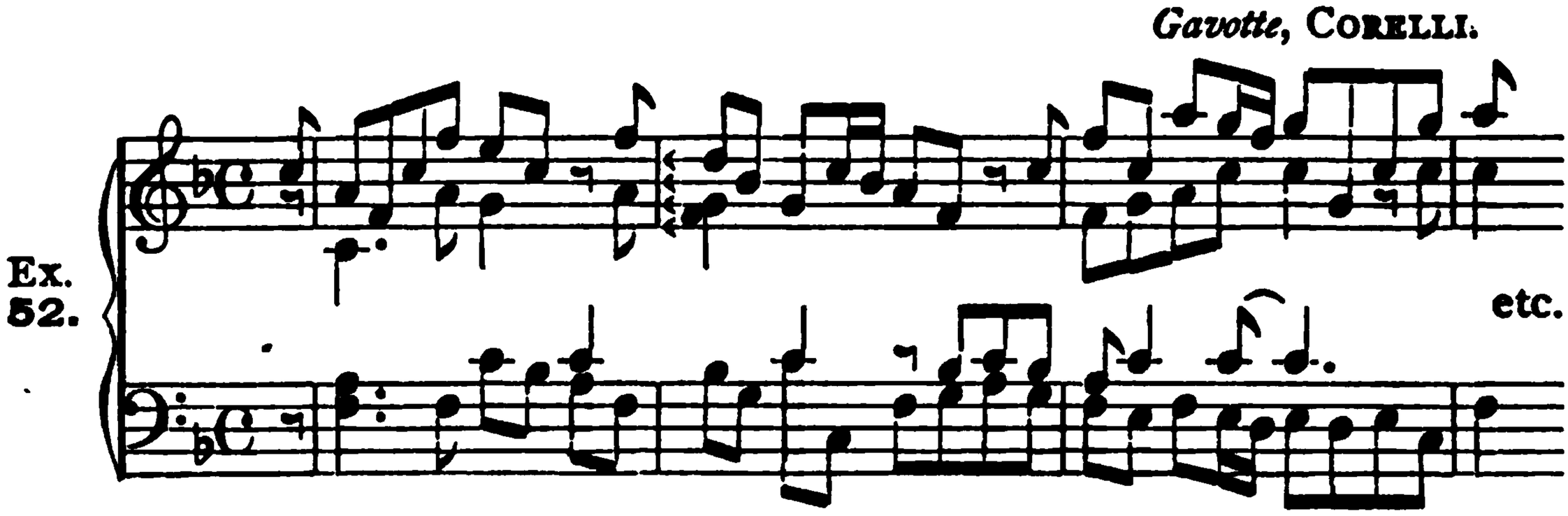


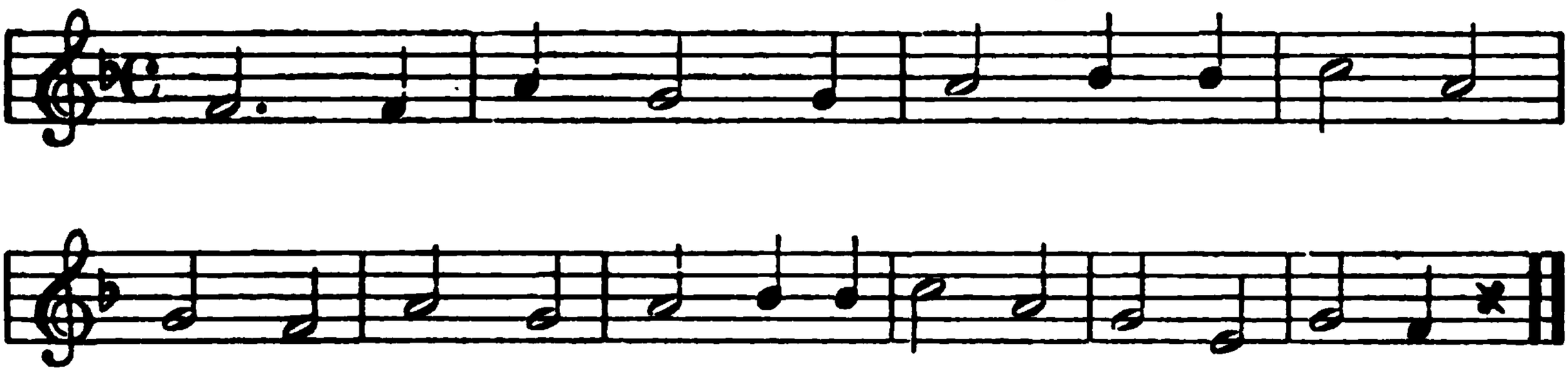
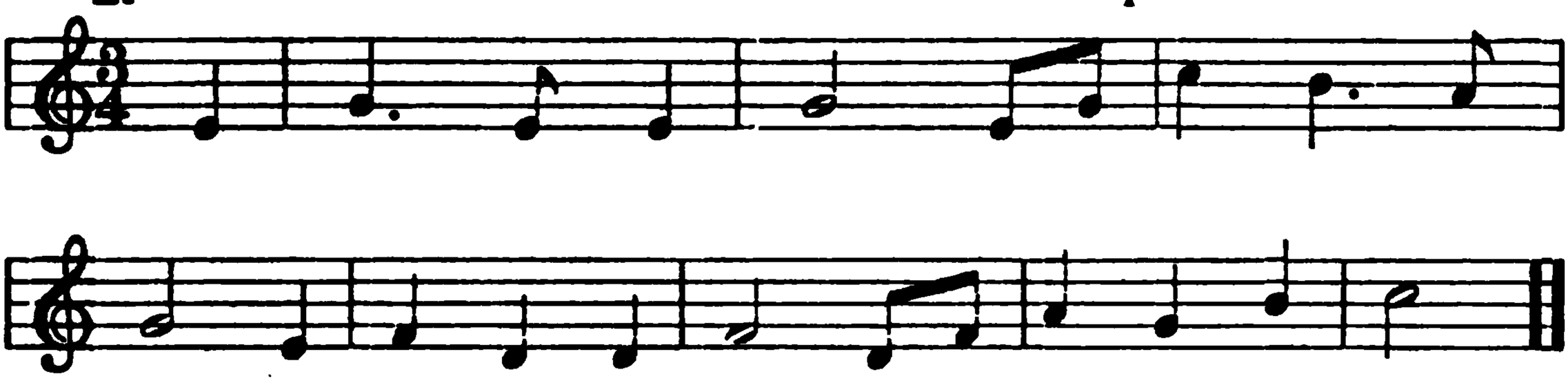
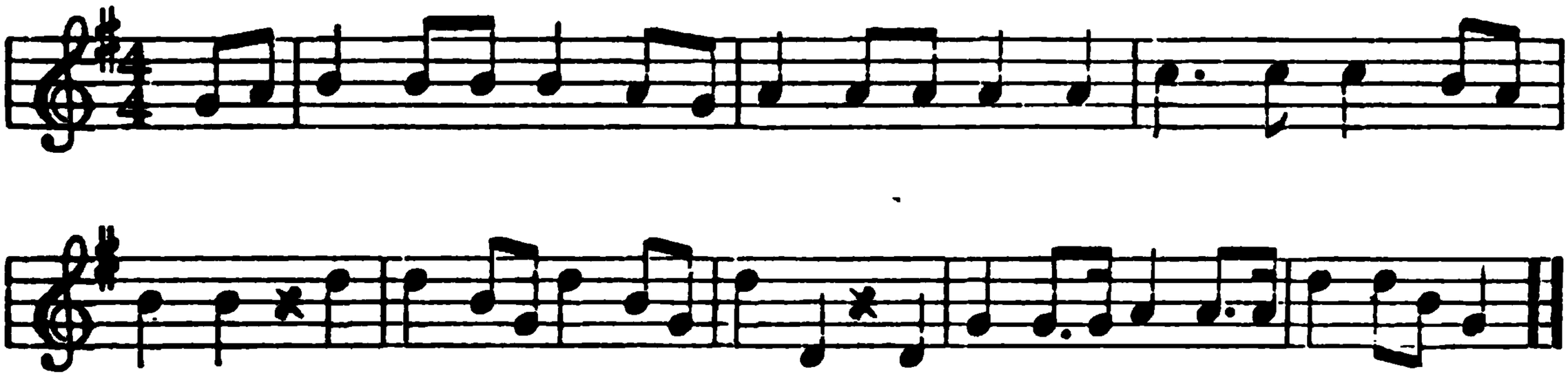
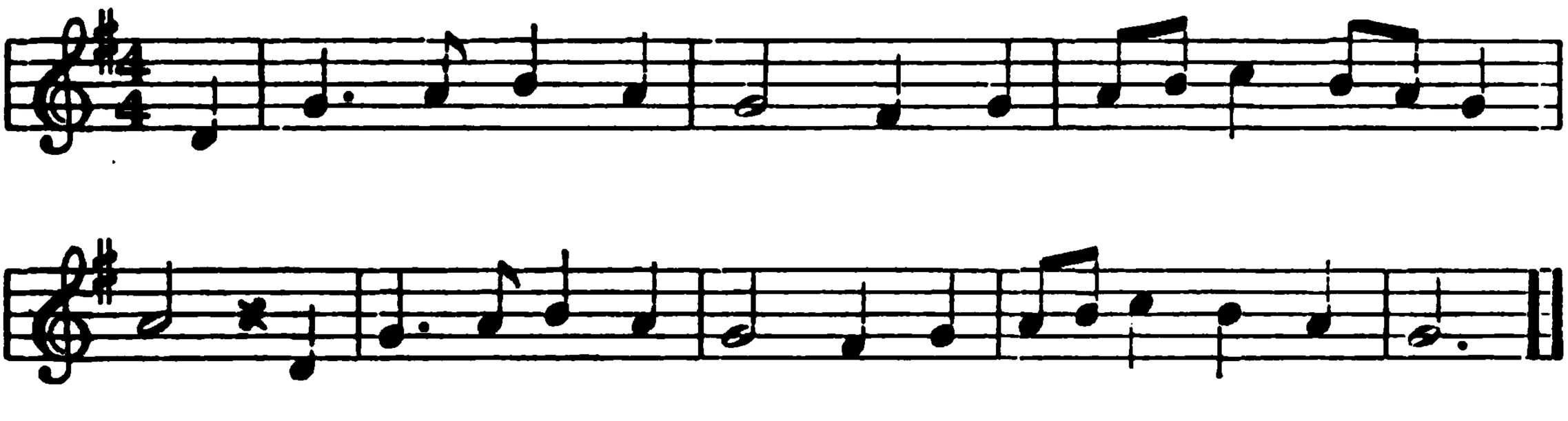
The inversions of the supertonic ninth chord do not frequently occur. Resolutions follow:



The supertonic chord may follow any triad although the progressions I–II and III–II are not frequent. Progression IV–II is better than progression II–IV.

Quotations follow:

Gavotte, CORELLI.

Ex. 52.

Exercises, Group 7.

1. Adapted from Beethoven.

2. Adapted from Brahms.

3. Adapted from Schumann.

4. J. Brahms.

5. Write final cadences in all major keys as follows:

1st. II–V–I.

2nd. II_7–V–I.

3rd. II_7–V_7–I.

4th. II_7–V_9–I.

CHAPTER VI.

THE SUPERDOMINANT CHORD.

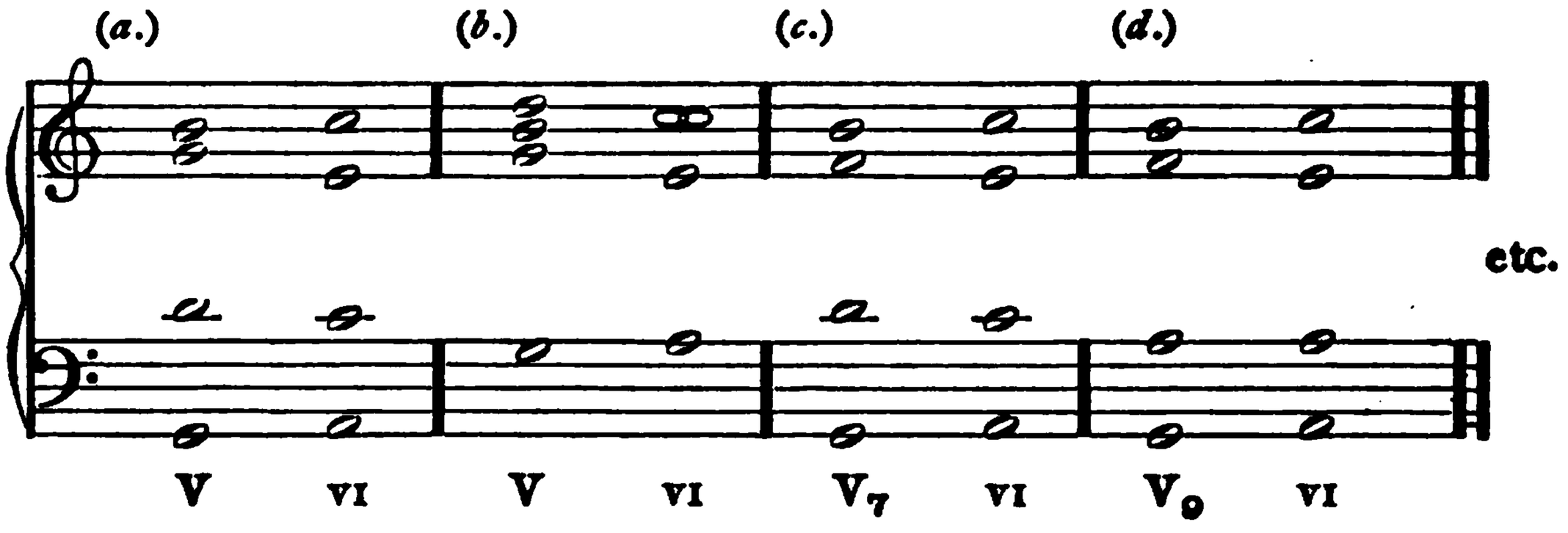
The secondary triad upon the sixth scale step is, like the supertonic triad, a minor triad. It belongs to the tonic family* and is very useful as the last chord of a phrase. Progression V–VI forms a "Deceptive Cadence."

We have seen that the progression V–I has finality and consequently is not always desirable as a phrase ending except for the last phrase. If, however, a phrase ended heretofore as follows: it was necessary to harmonize it with V–I because of the infrequency of progression V–IV and the undesirableness of IV as a phrase ending. Now with the addition of the superdominant triad to our vocabulary, we may harmonize the tonic in the above phrase ending with VI.

The most effective position of the superdominant triad is with its third in the soprano; the chord is weak with its fifth in the soprano and should seldom be used with its root in the soprano.

Various progressions of V–VI are shown in the following example.

Ex. 53.



The resolution of the dominant seventh chord to the superdominant triad is the most important non-cadencing resolution of the dominant seventh chord.

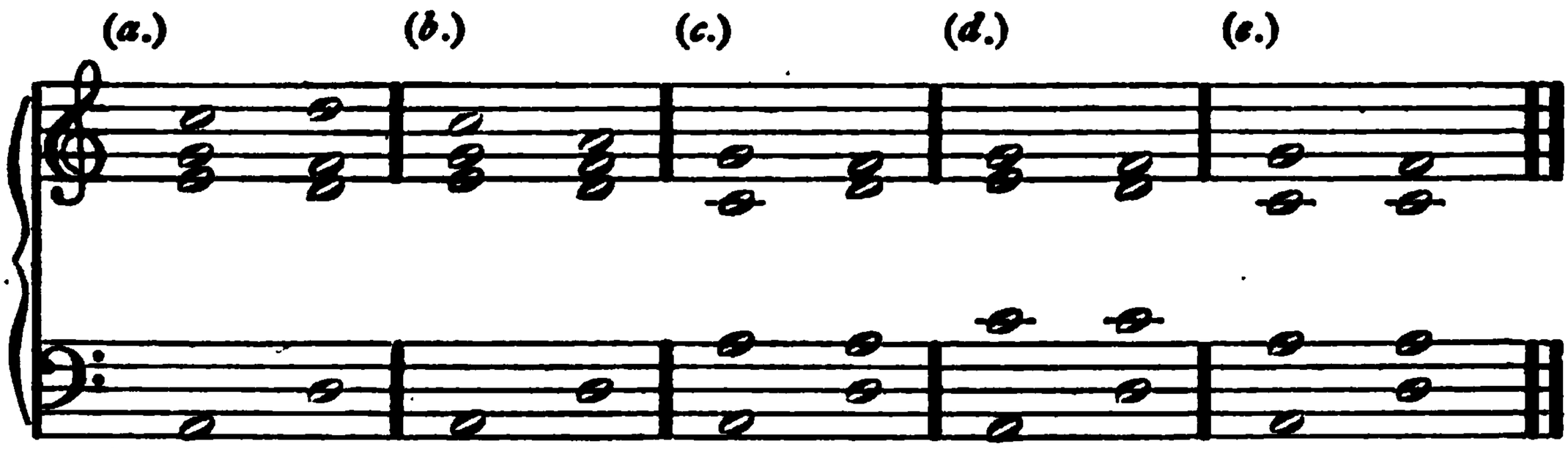
The superdominant triad is not restricted to the above use. It occurs frequently in the midst of phrases. A normal progression of VI is to II, and progressions VI–V and VI–IV are available. VI–I should be avoided. VI may be preceded by I, II or V and occasionally by III or IV. Progression I–VI is better than VI–I.

*A few theorists place this chord in the subdominant family, but as it is more commonly used as a substitute for the tonic chord, it is herein placed in that family.

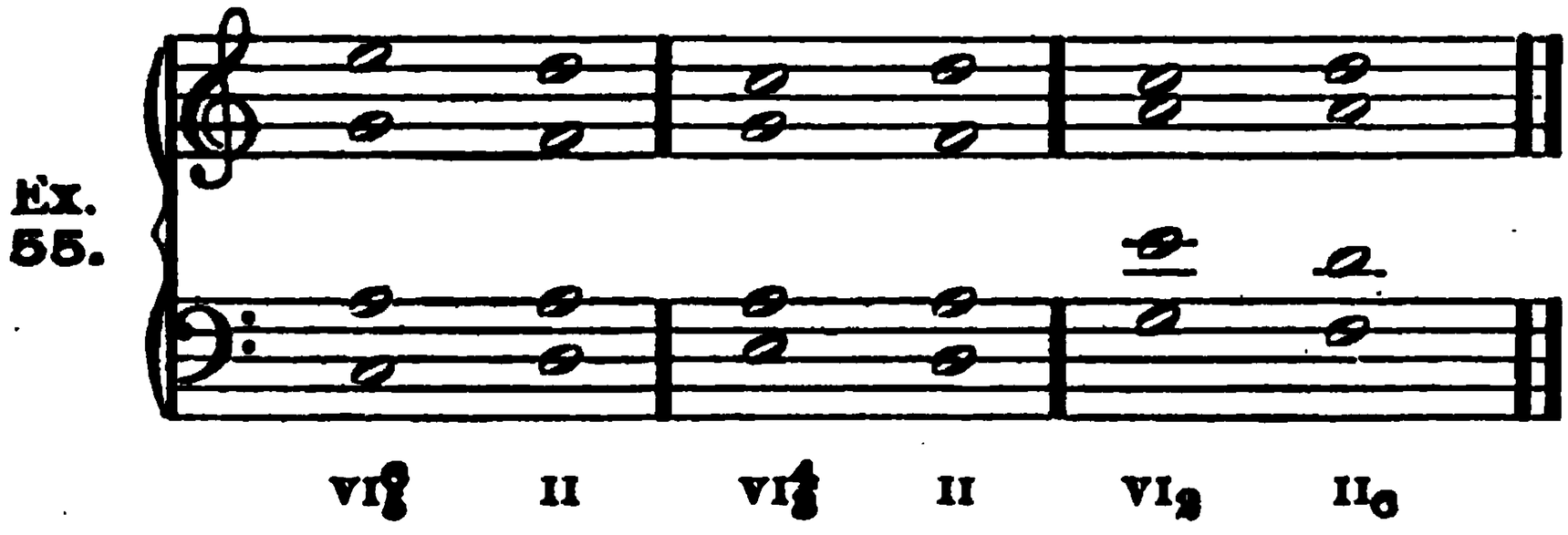
The inversions of the supertonic triad need no explanation. Progression V–VI is best with both chords in root position.

The superdominant seventh chord occurs less frequently than the dominant and supertonic seventh chords. It is constructed like the supertonic seventh chord (minor triad and minor seventh). Because of the frequent use of this seventh chord formation as a supertonic chord, its use on other scale degrees has a tendency to suggest modulation. In many cases where we hear the superdominant seventh chord, we hover, as it were, between two keys. Its cadencing progression to a major triad effectuates a modulation but its cadencing progression to a minor triad may be manipulated in such a manner as to retain the original tonality.

The cadencing progression of the superdominant seventh chord is to the supertonic chord, thus:

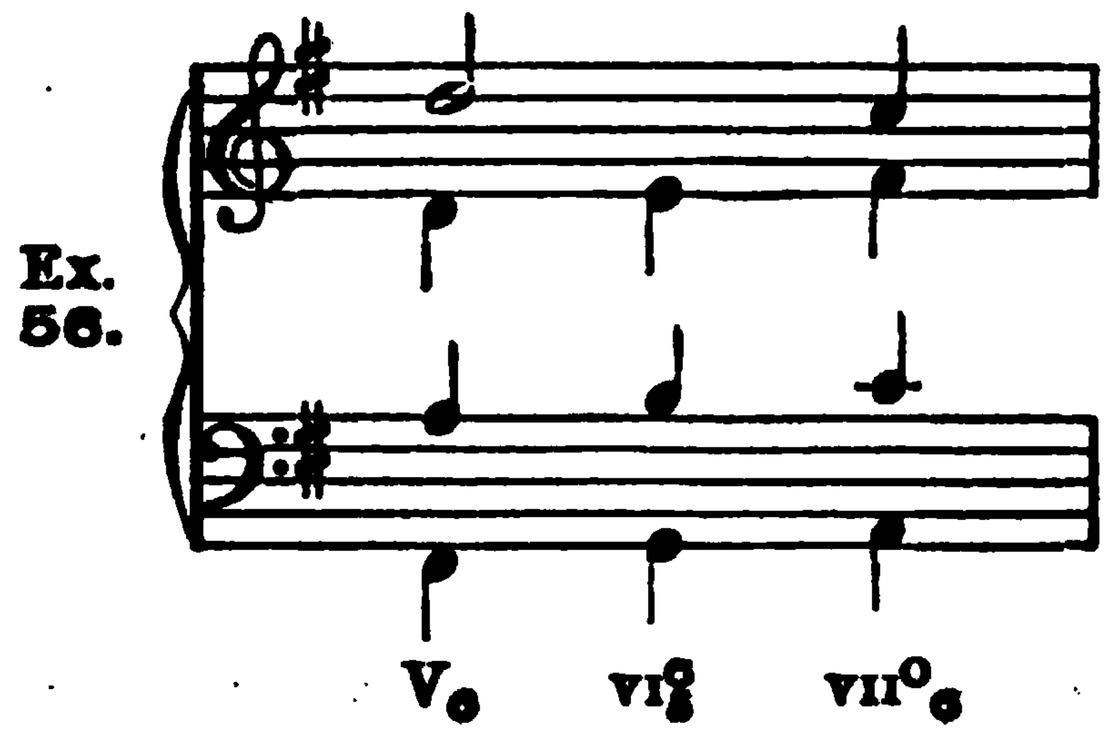
Ex. 54.

The cadencing progression of the inversions follow:

Ex. 55.



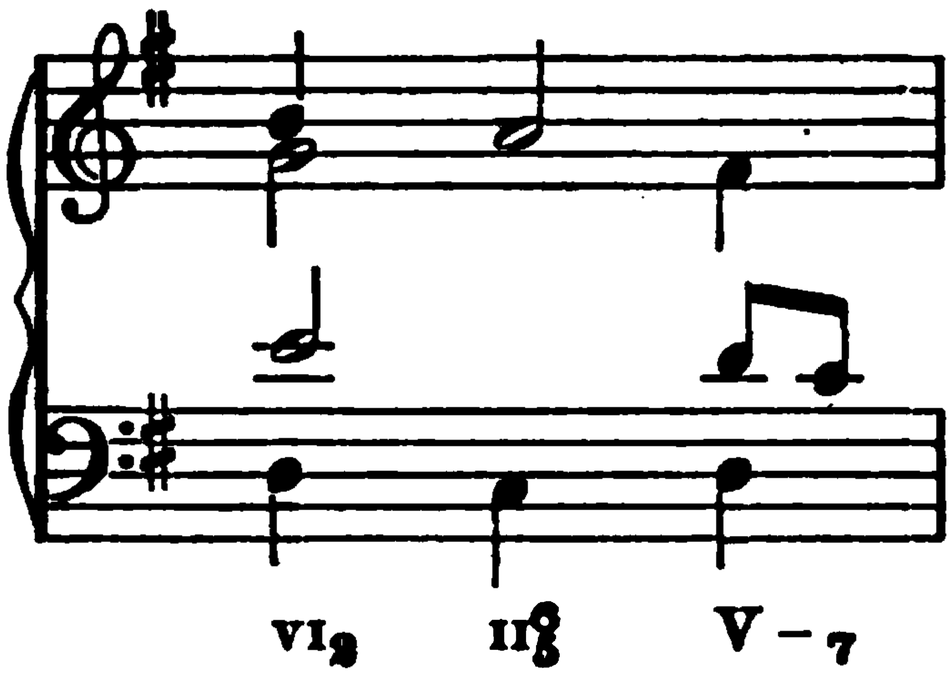
A non-cadencing progression of VI⅔ is quoted from a Bach Choral:

Ex. 56.



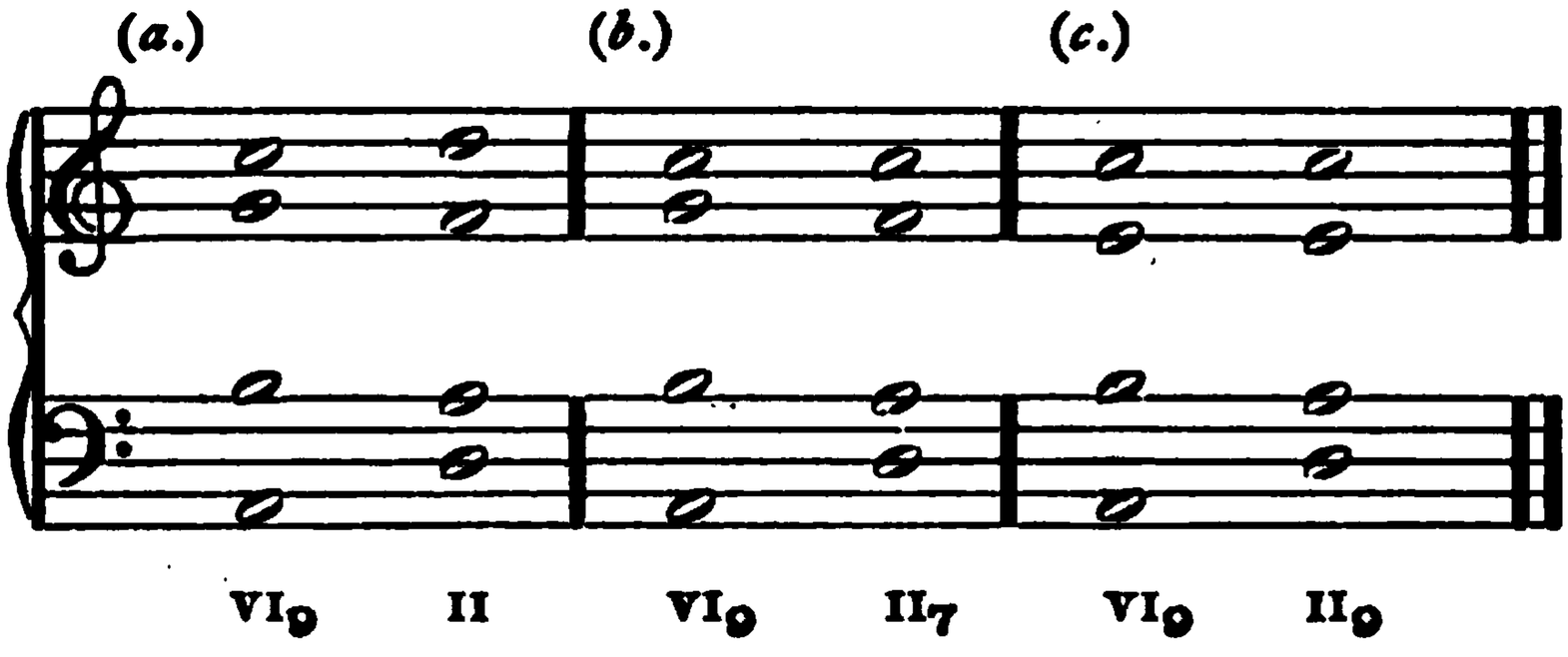
A cadencing progression of VI_3 is quoted from the same choral:

Ex. 57.



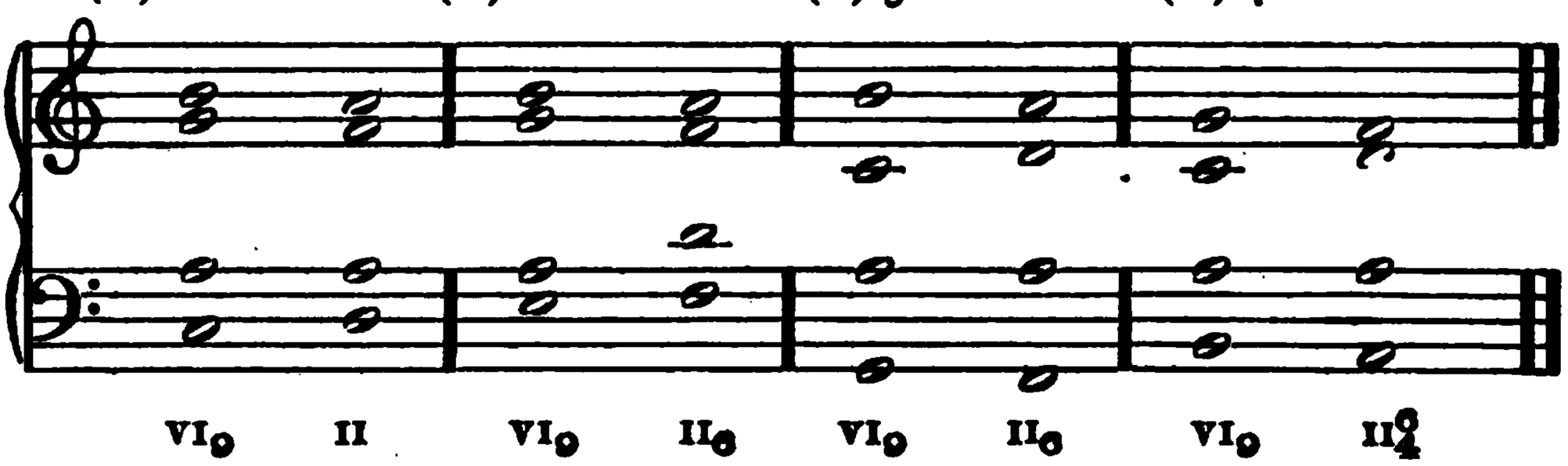
The use of the superdominant ninth chord* is not common. Cadencing progressions follow:

Ex. 58.



The inversions of the superdominant ninth chord are rarely used. Their cadencing progressions follow:

(*a.*) 1st inversion. (*b.*) 2nd inversion. (*c.*) 3rd inversion. (*d.*) 4th inversion.

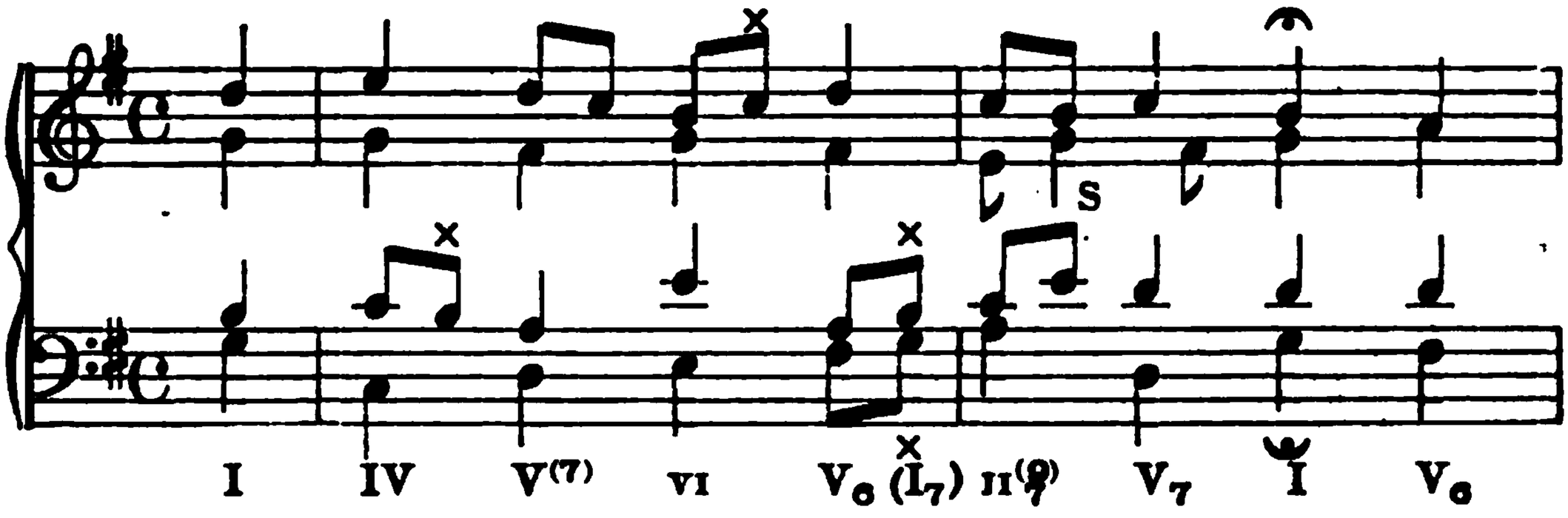
Ex. 59.

The addition of the superdominant chord to our vocabulary gives an additional chord for harmonizing the first, third, and sixth scale steps (seldom the latter, however), occasionally the fifth scale step where it descends diatonically, and rarely the seventh scale step where it descends diatonically.

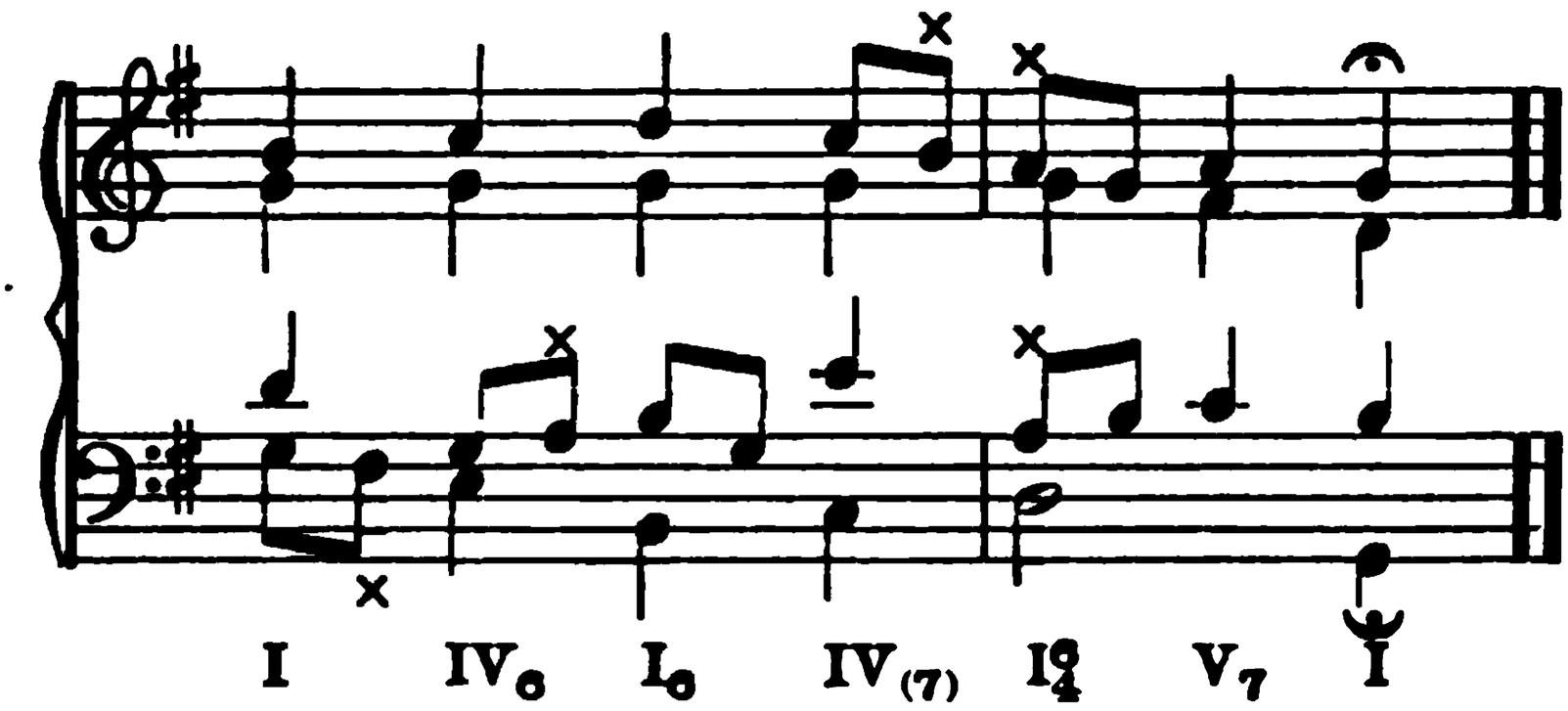
The following quotations should be carefully studied.

* Some theorists consider the tonic seventh chord a superdominant ninth chord without root.

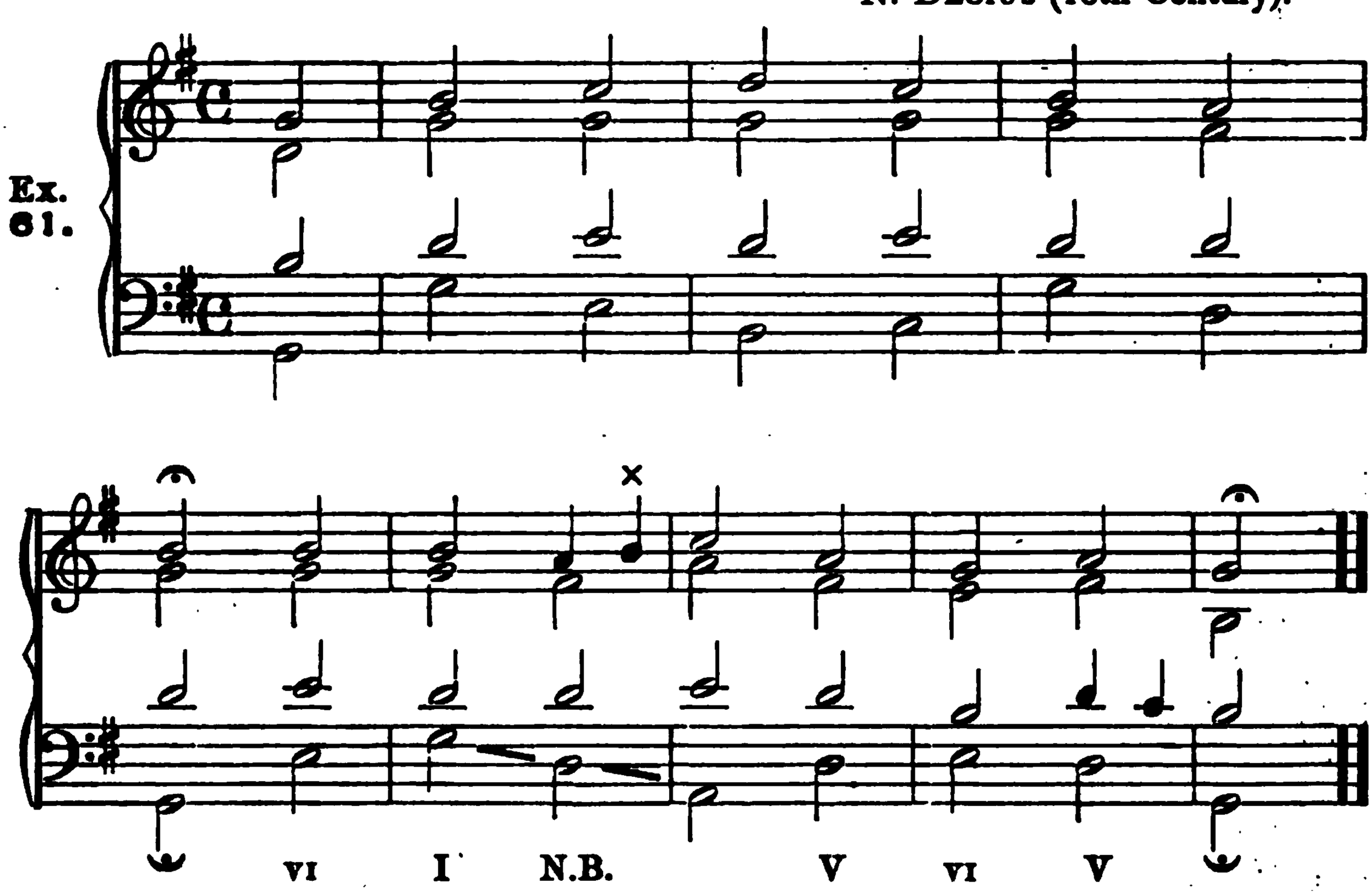
J. S. BACH.

Ex. 60.

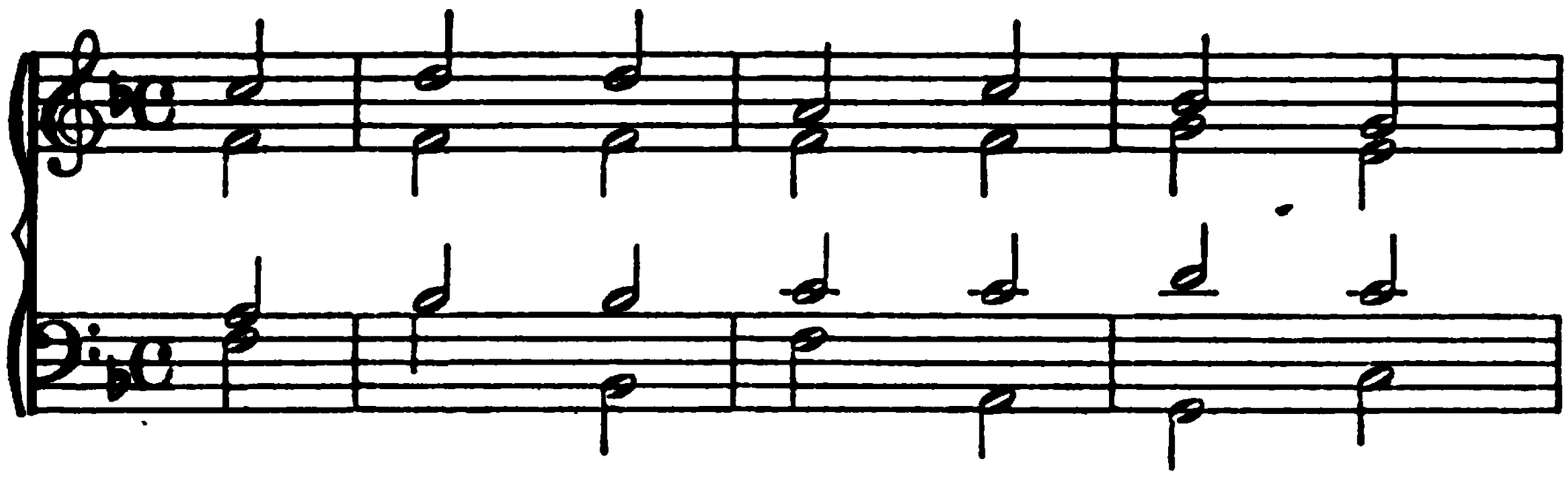




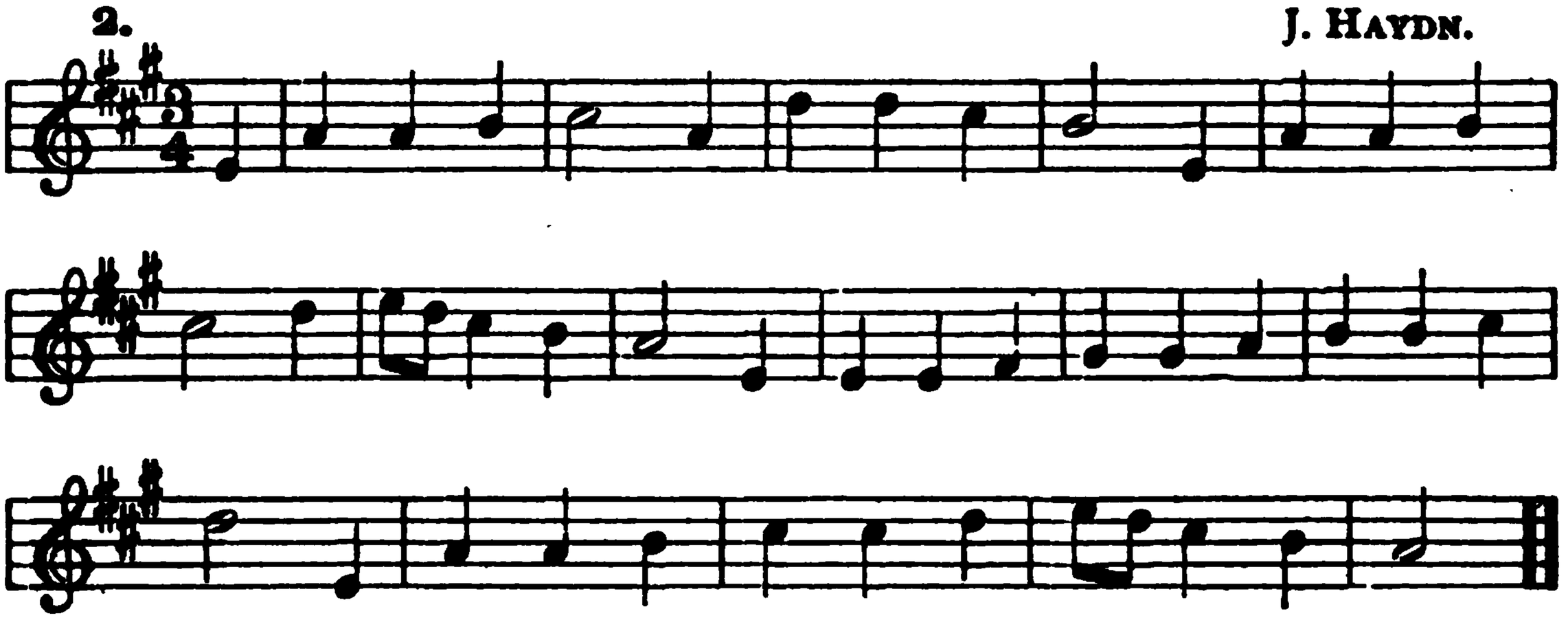
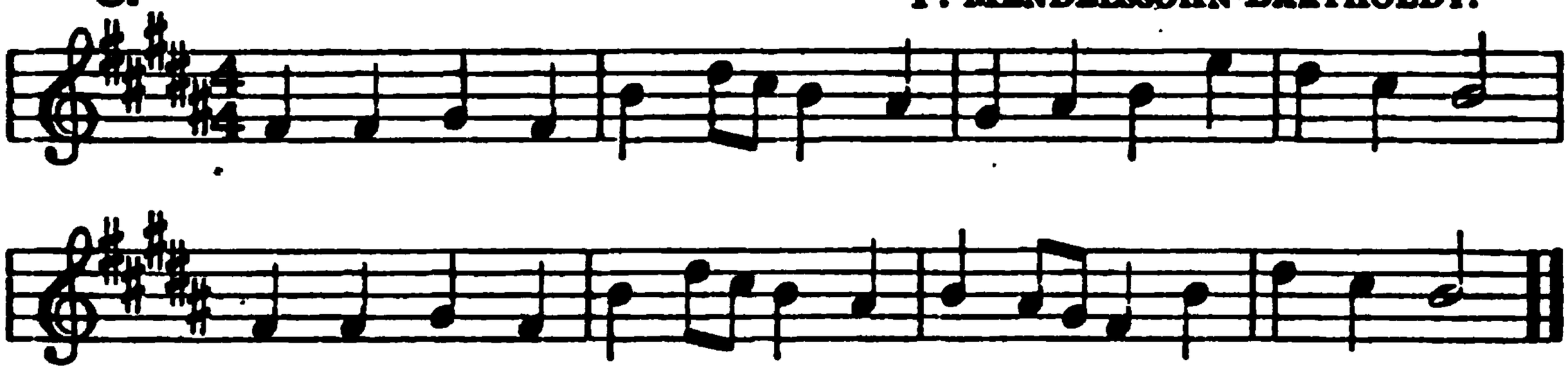
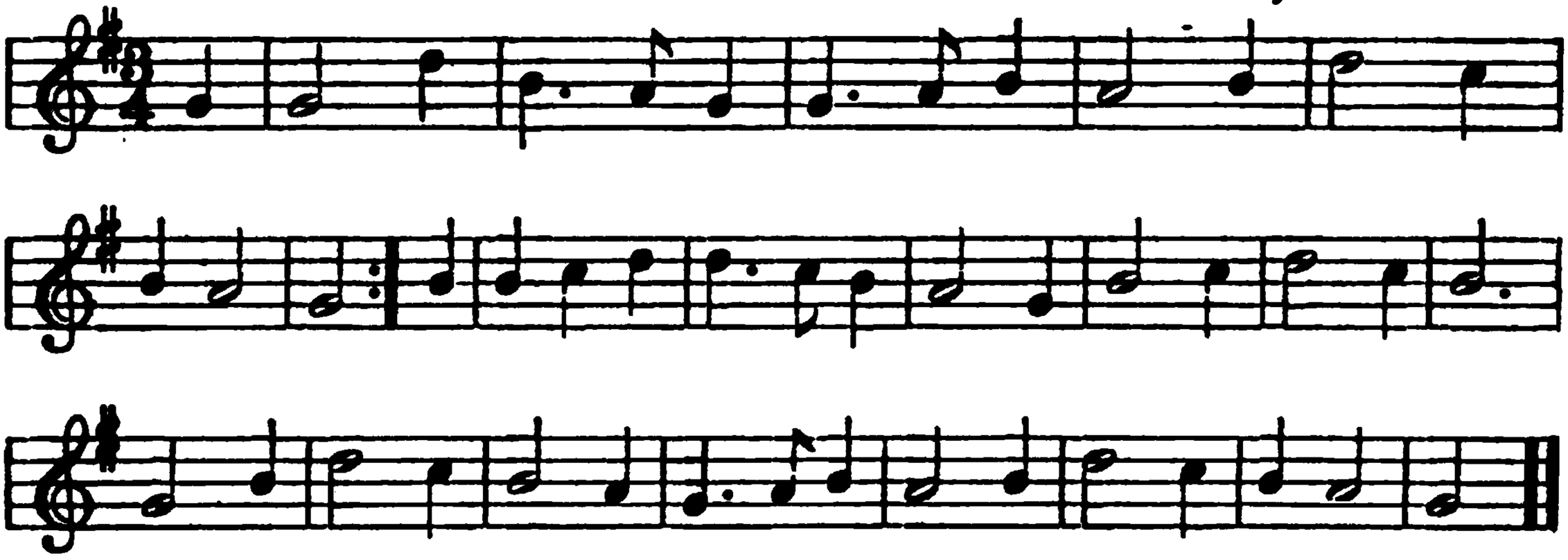
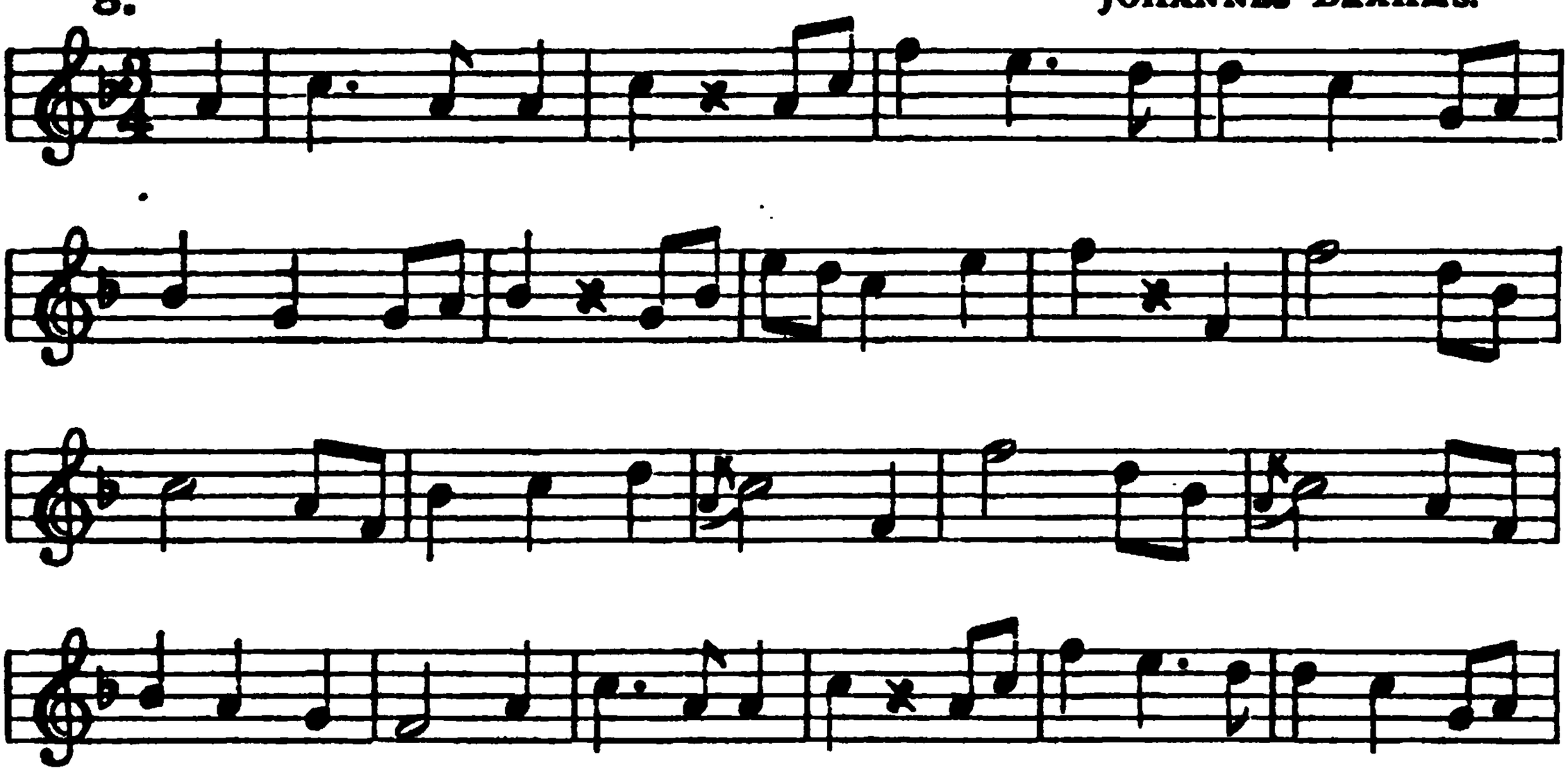
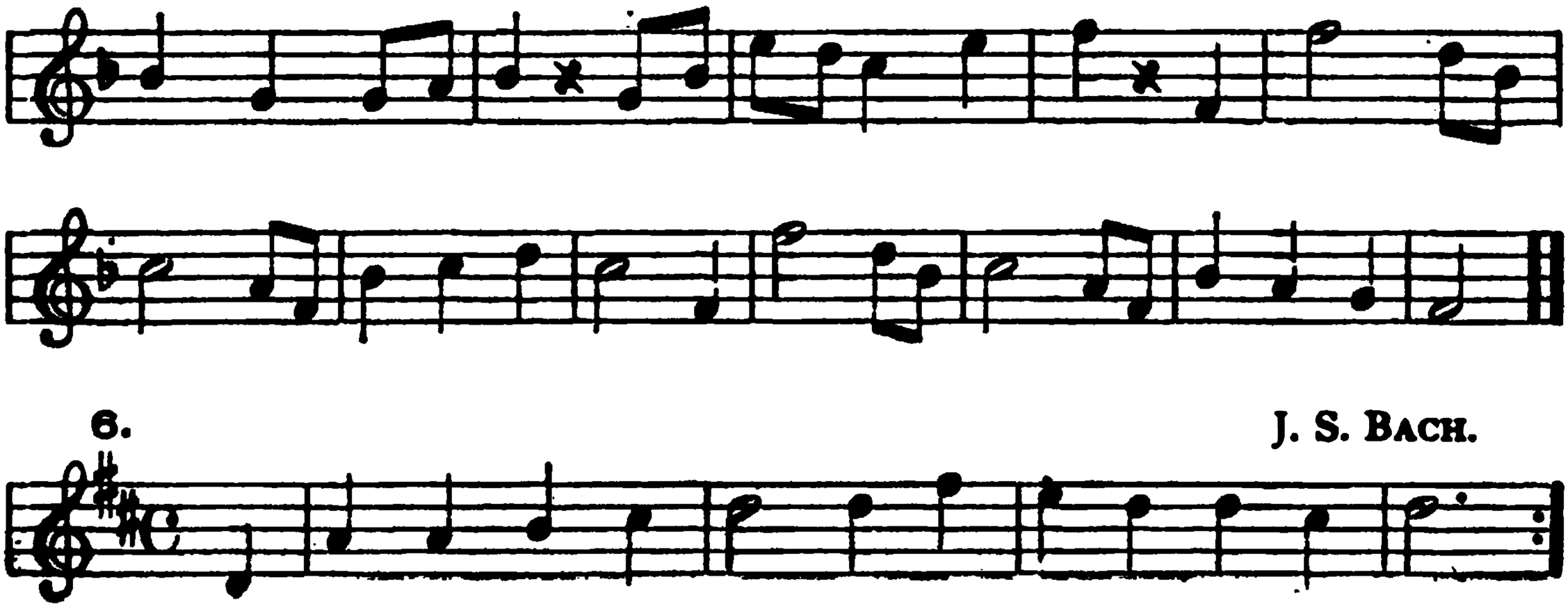
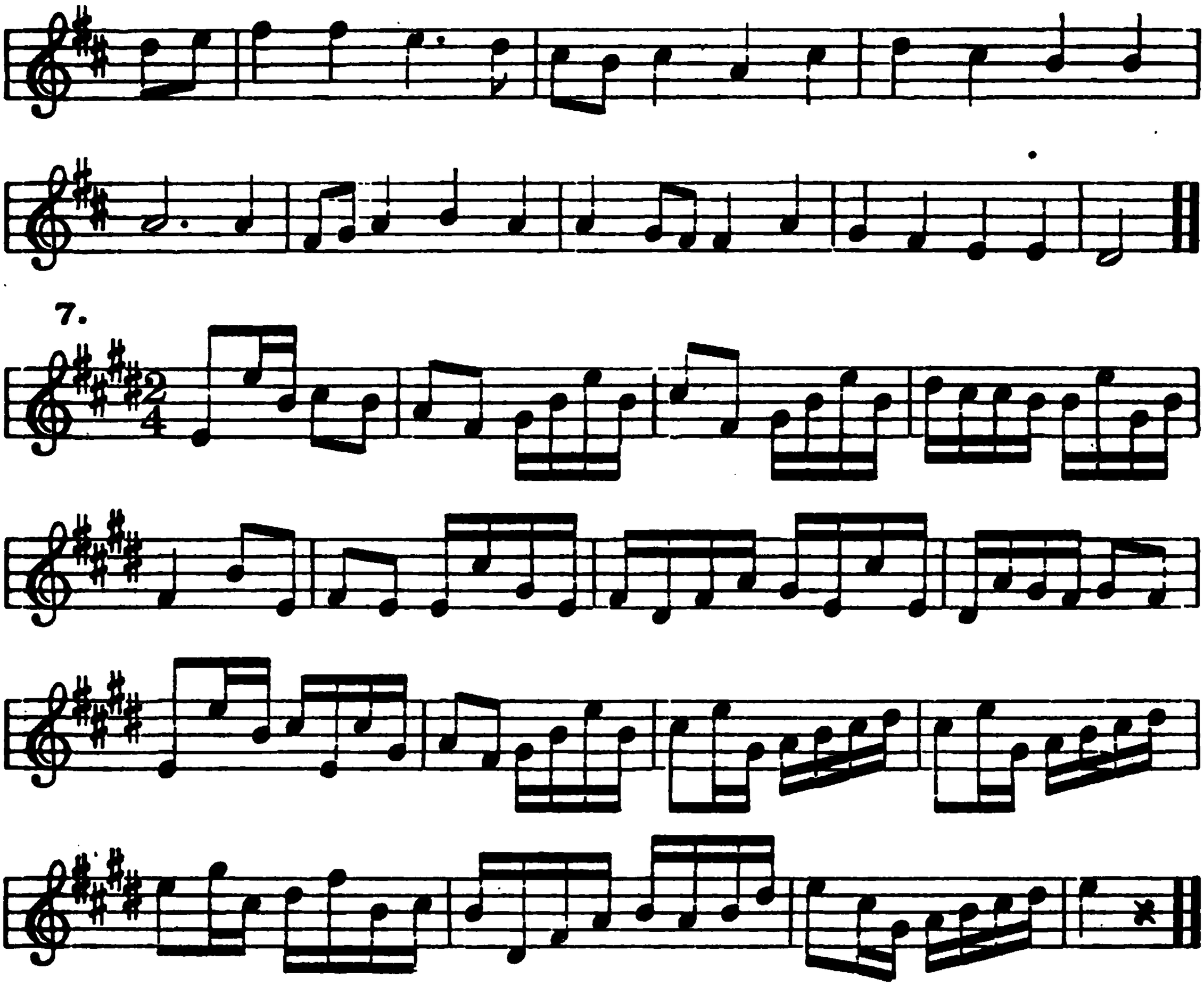
N. DECIUS (16th Century).

Ex. 61.

Notice two skips of a fourth in the bass in measure 5 and 6. Two or more skips of a fourth or of a fifth in the same direction in any voice part should be avoided for the present. Most theorists forbid such skips but they are found in many works, especially in the works of modern composers.

W. DACHSTEIN (16th Century).

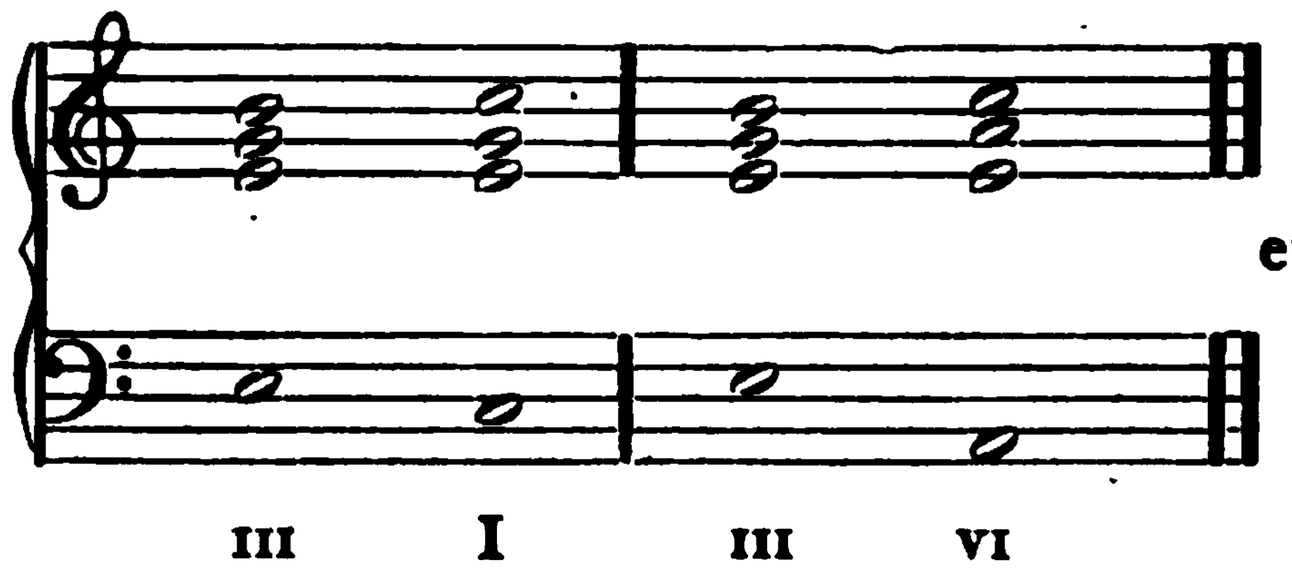
Ex. 62.

EXERCISES, GROUP 8.

1. FRANZ SCHUBERT.

2. J. HAYDN.

3. F. MENDELSSOHN-BARTHOLDY.

4. J. S. BACH.

5. JOHANNES BRAHMS.

6. J. S. BACH.

CHAPTER VII.

THE MEDIANT CHORD.

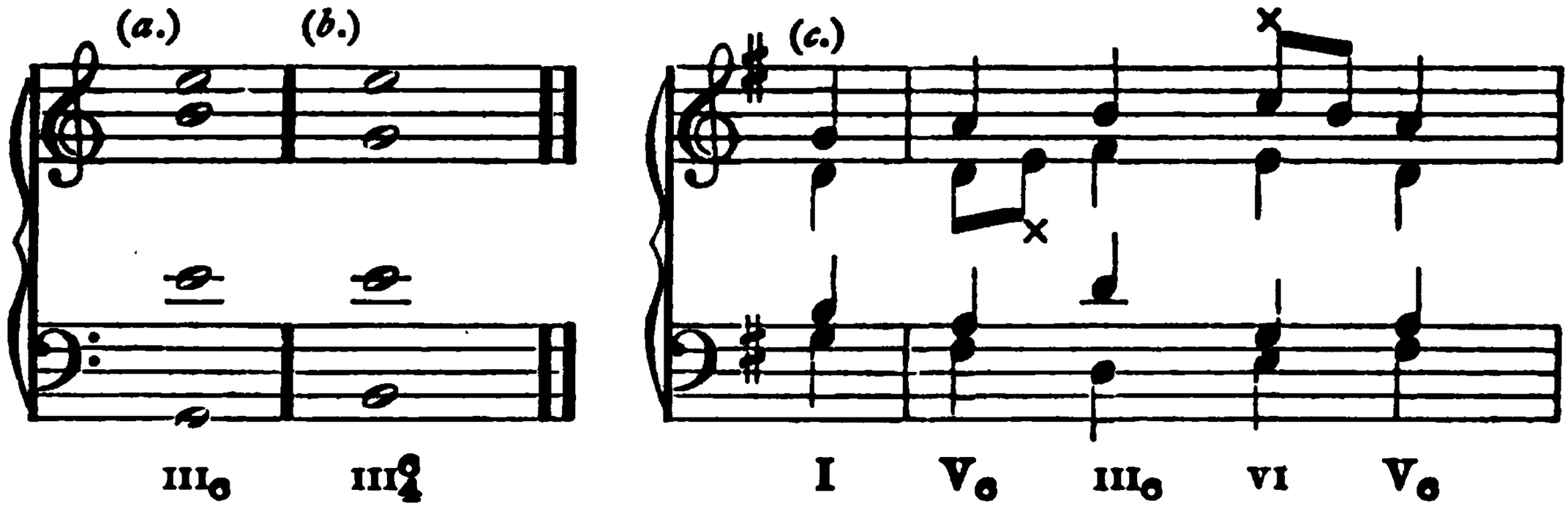
The mediant triad is formed, like the two preceding secondary triads, with minor third and perfect fifth. This minor triad is consonant but active. Its use is less common than that of the other triads. It belongs to the dominant family and progresses normally to the tonic. It does not frequently displace the dominant chord at the final cadence although it was used in this manner in the Romantic Period. Progressions to the tonic family follow:

Ex. 63.

The progression III–VI has tonal ambiguity; the key of the relative minor is suggested in its descending melodic form.

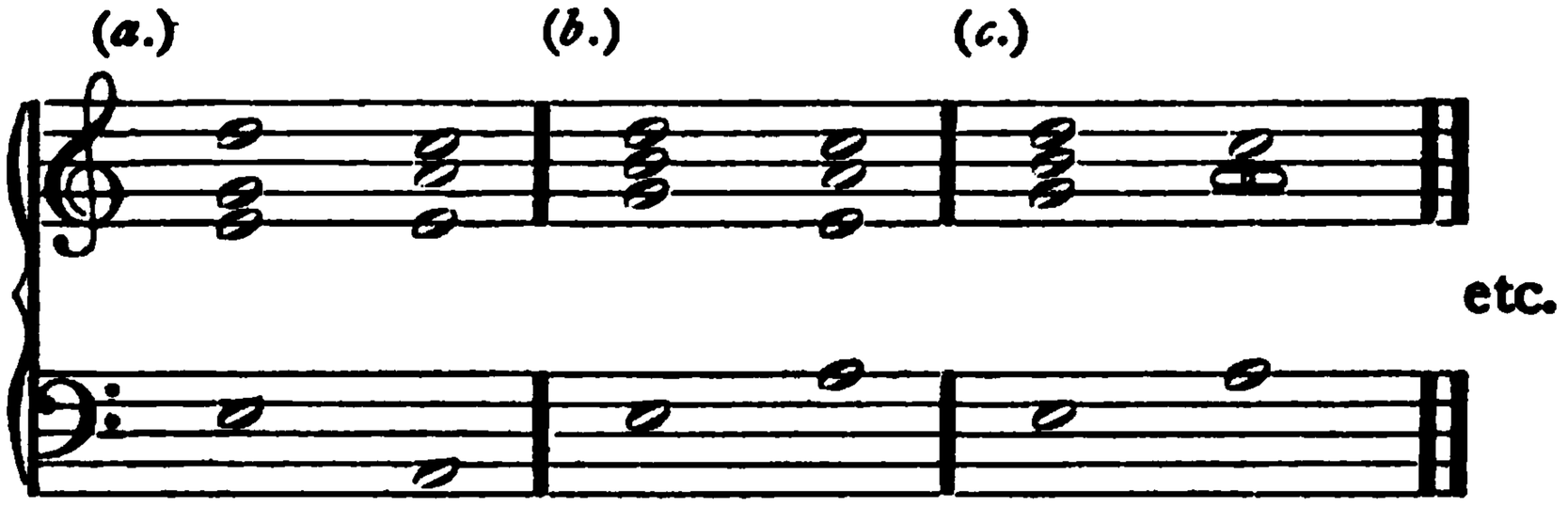
The inversions of the triad follow:

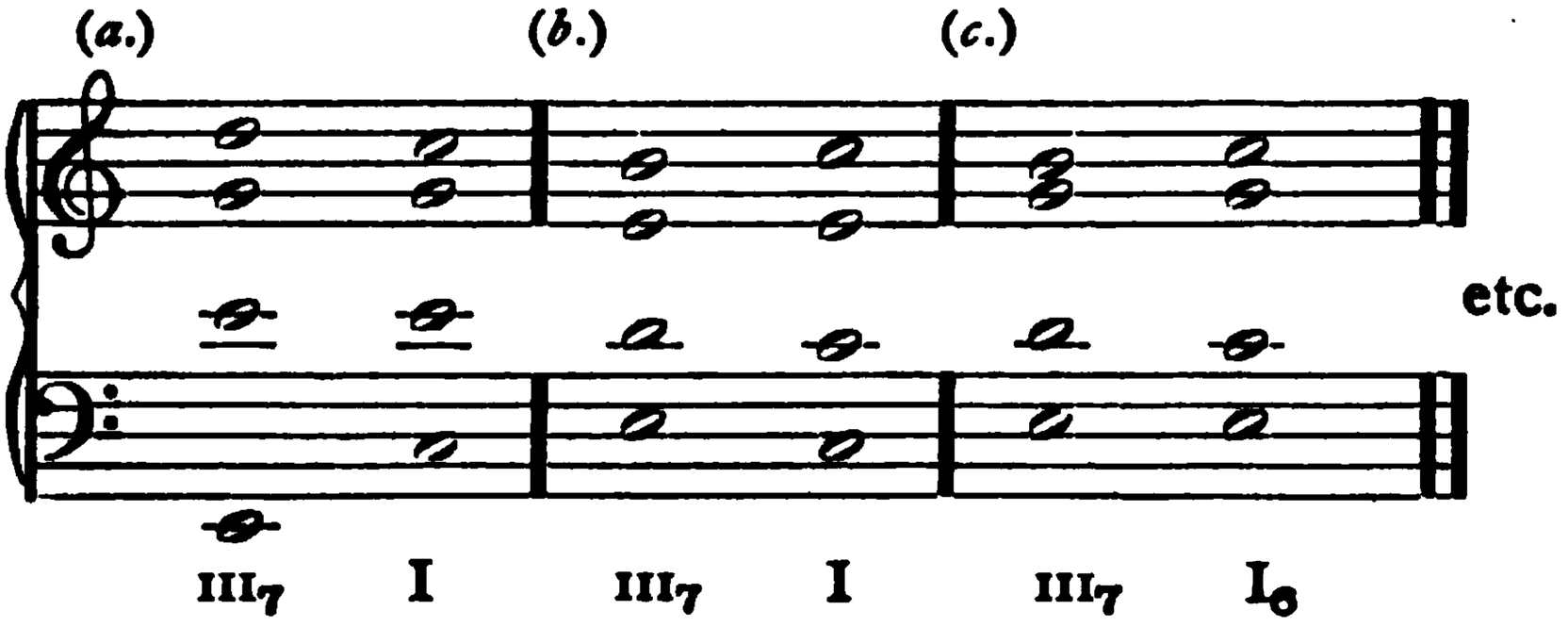
BACH.

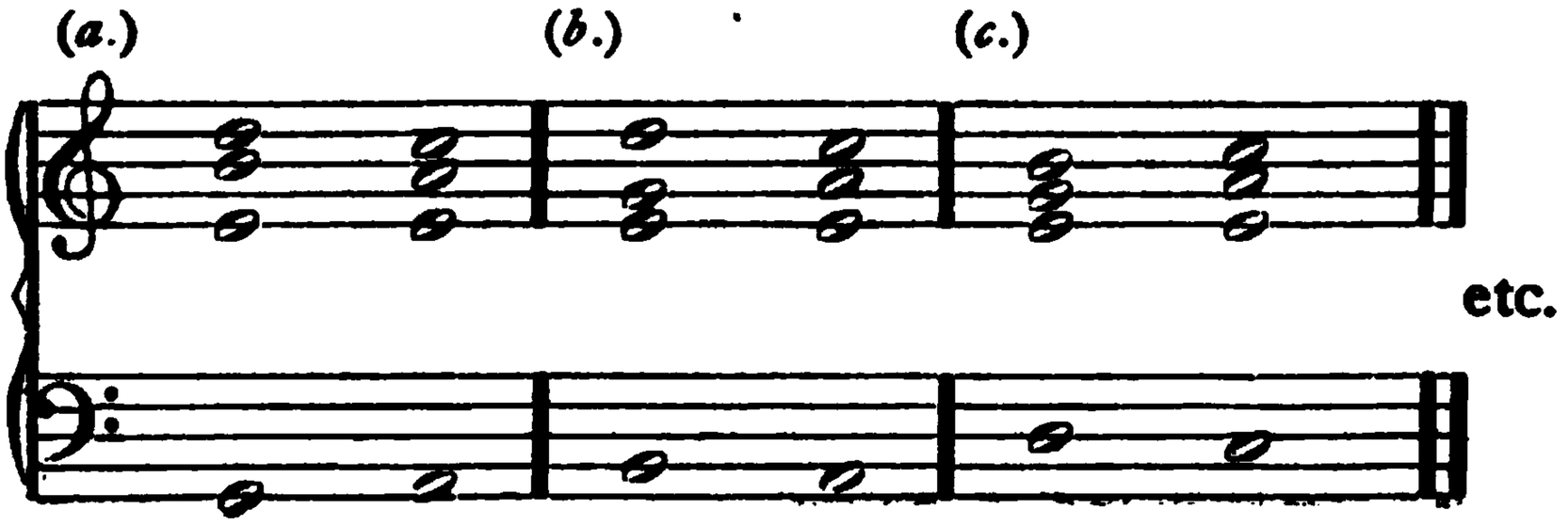
Ex. 64.

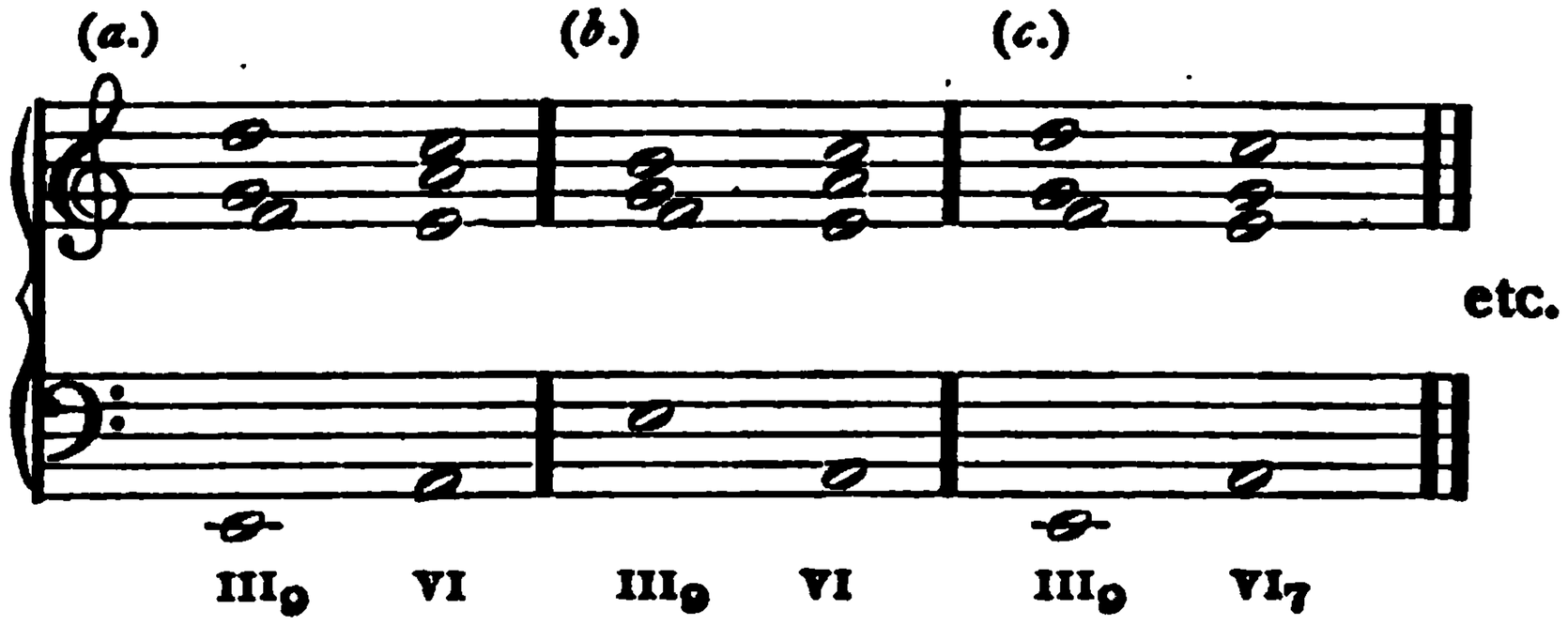


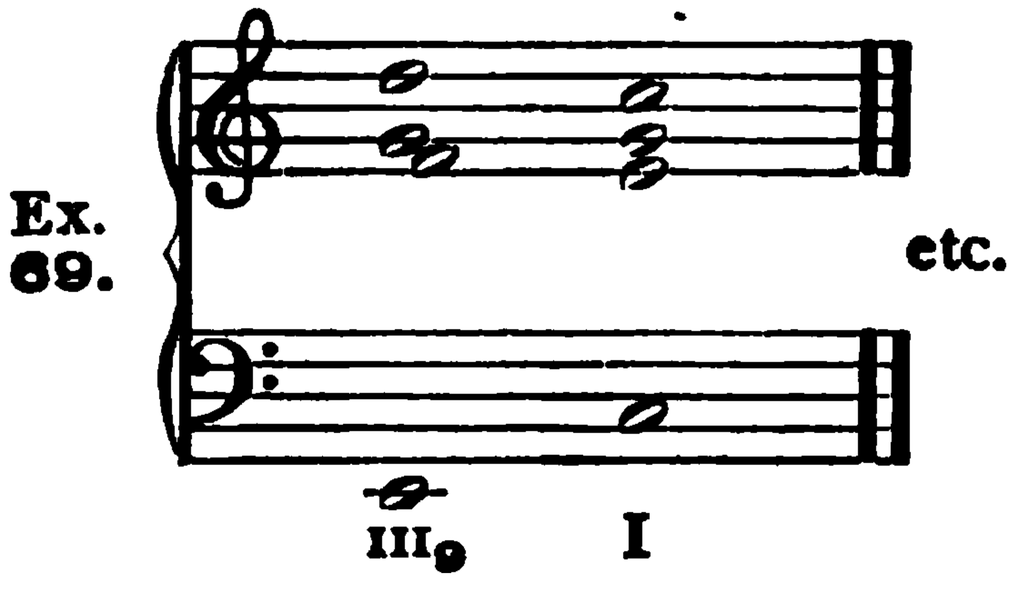
The mediant seventh chord is formed with minor seventh like the supertonic and superdominant seventh chords. It is somewhat more useful than the superdominant seventh chord but does not occur as commonly as the supertonic seventh chord. Its cadencing resolution is to the superdominant chord.

Ex. 65.

A useful non-cadencing resolution of the mediant seventh chord is to the tonic.

Ex. 66.

The inversions of the mediant seventh chord with cadencing resolution follow:

Ex. 67.

The mediant ninth chord is not commonly used. Its cadencing resolution follows:

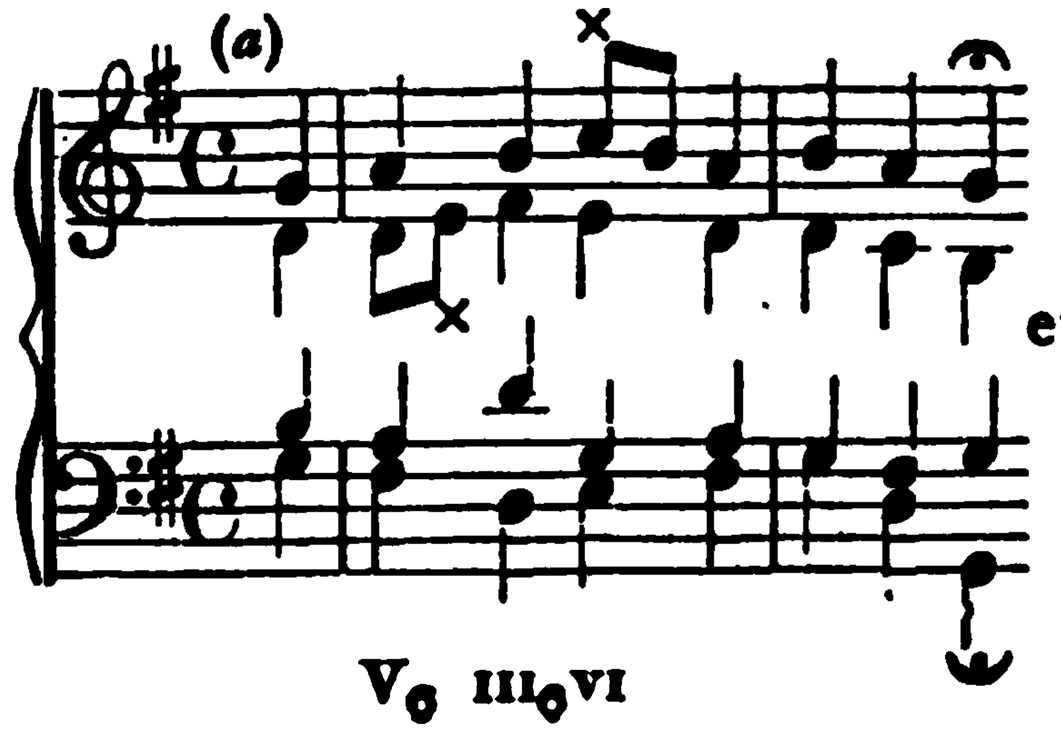
Ex. 68.

Its tonic resolution follows:

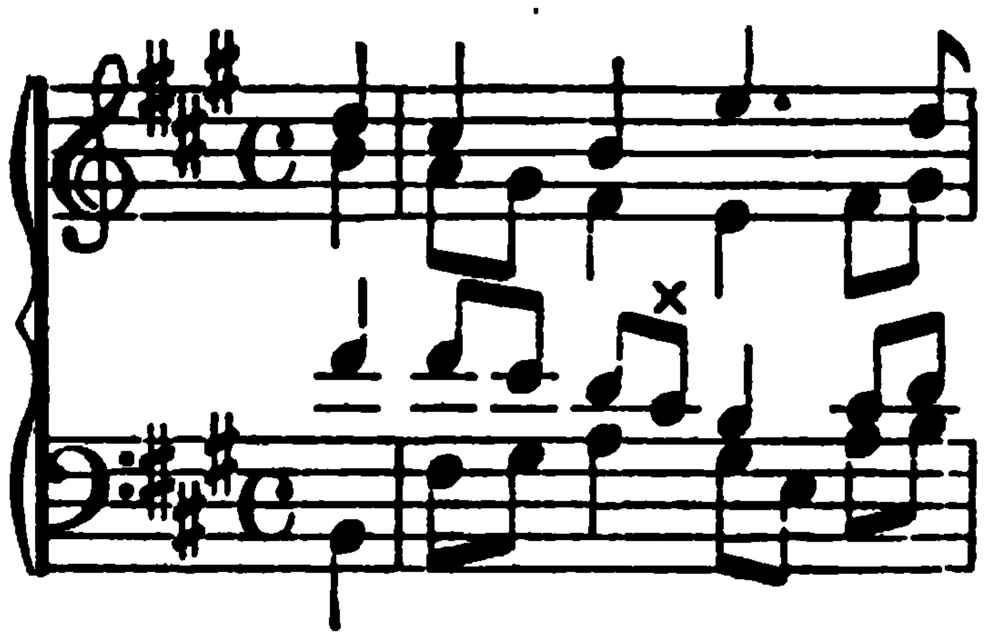
Ex. 69.

The inversions of the mediant ninth chord follow:

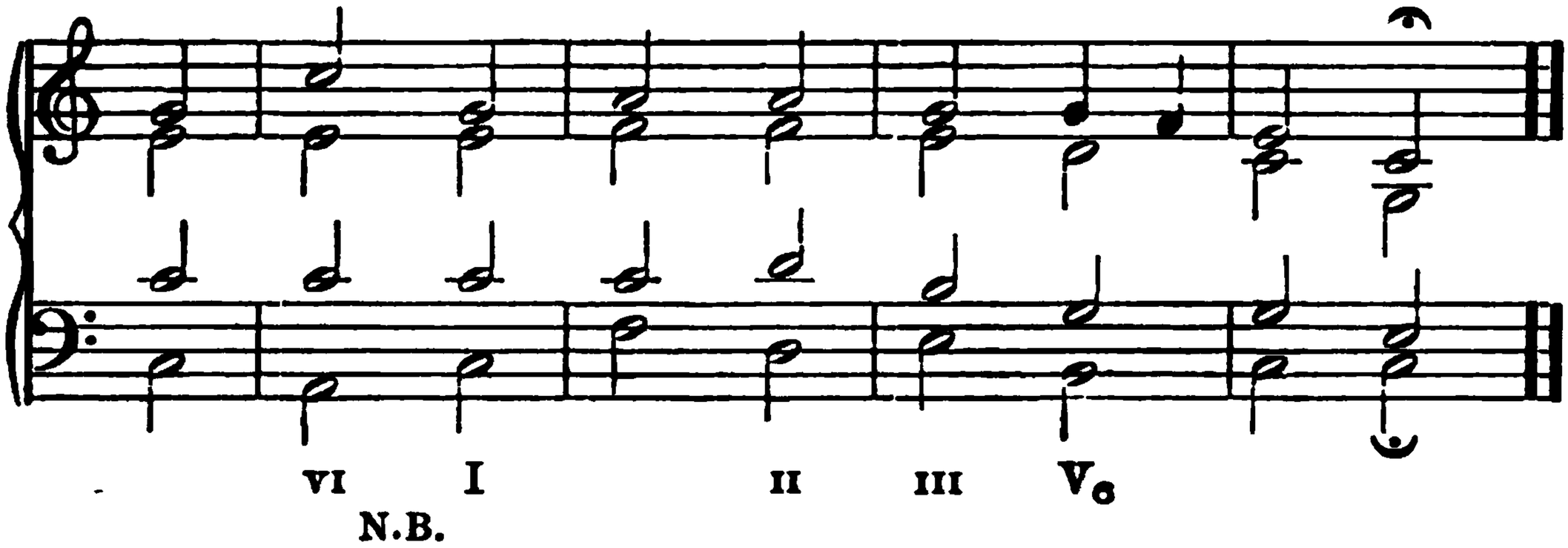
Ex. 70.

Study the following quotations.

Ex. 71.

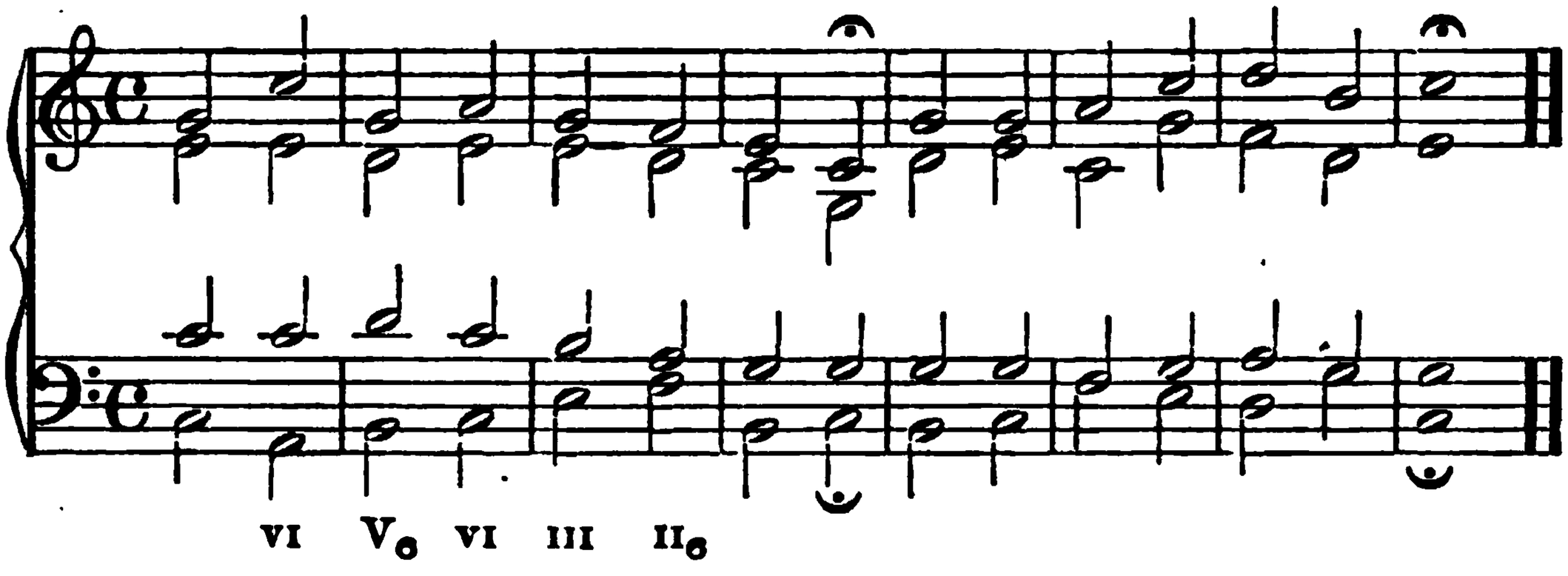
BACH.

etc.

BACH.

Early 18th Century Choral.

Ex. 72.

N.B.

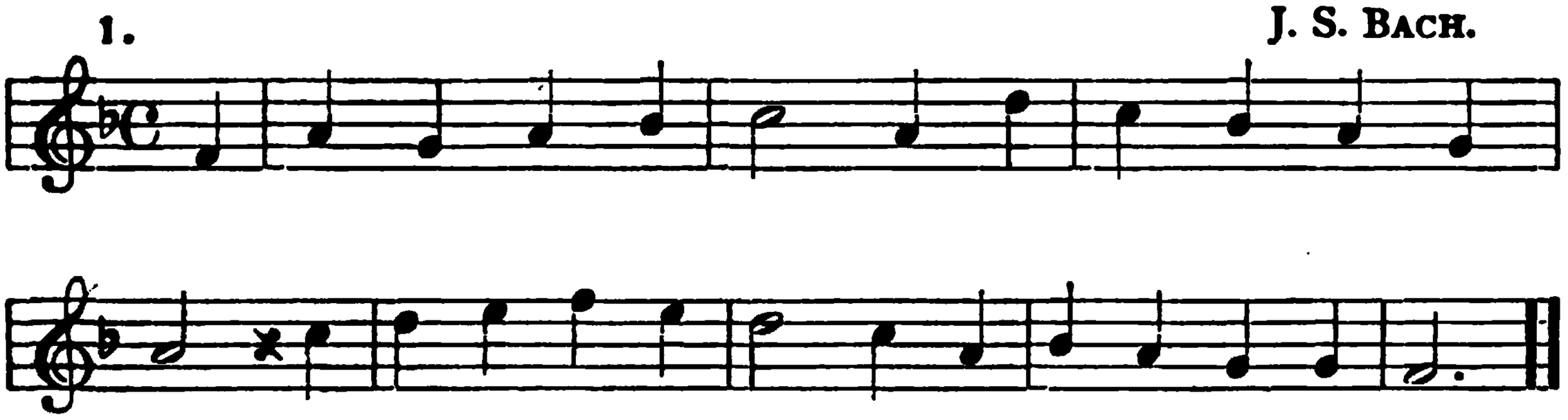
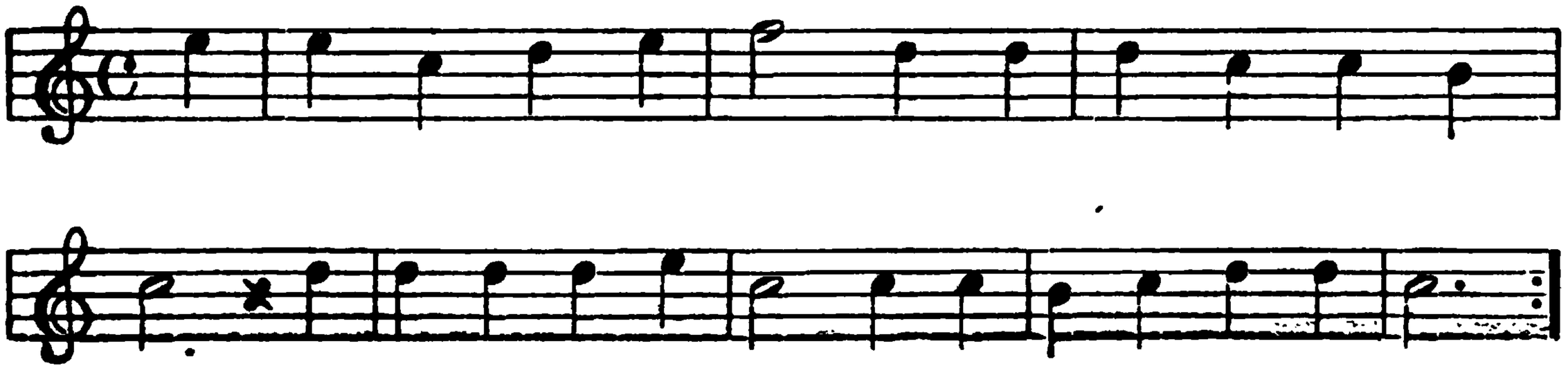
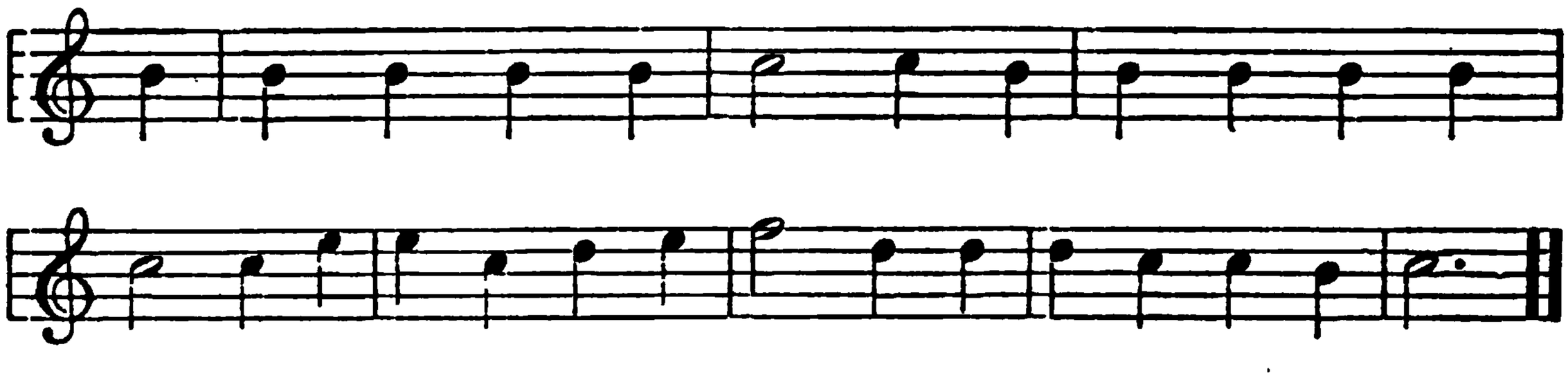
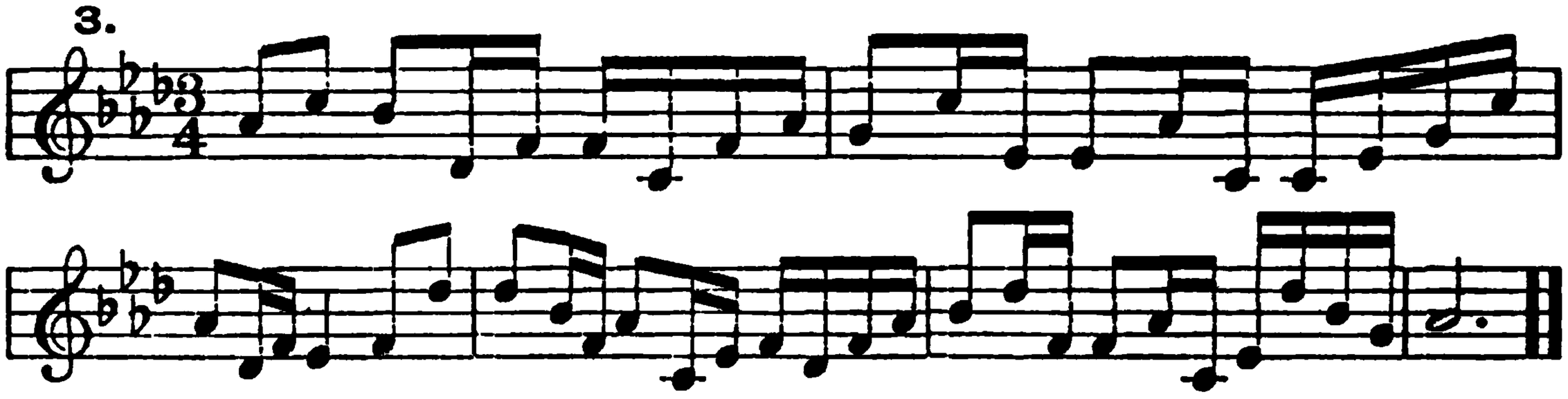
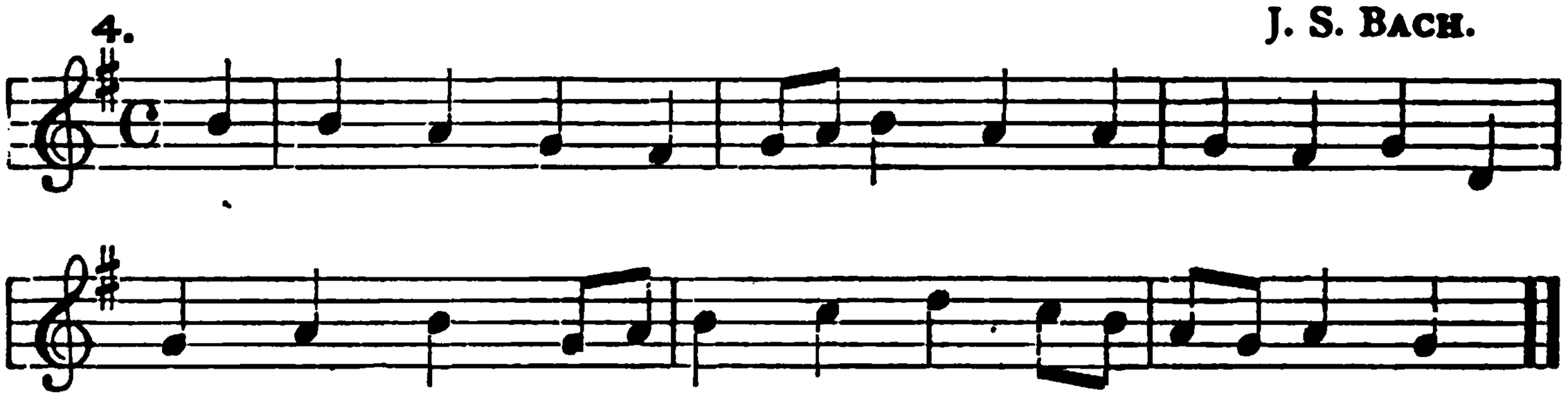
ROSENMÜLLER (17th Century).

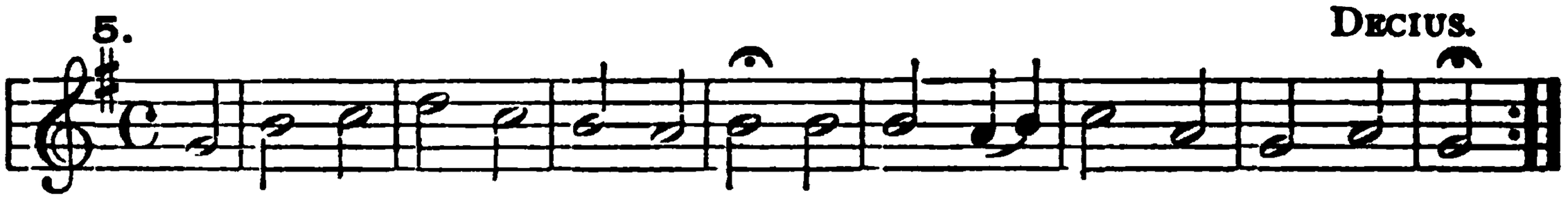
Ex. 73.



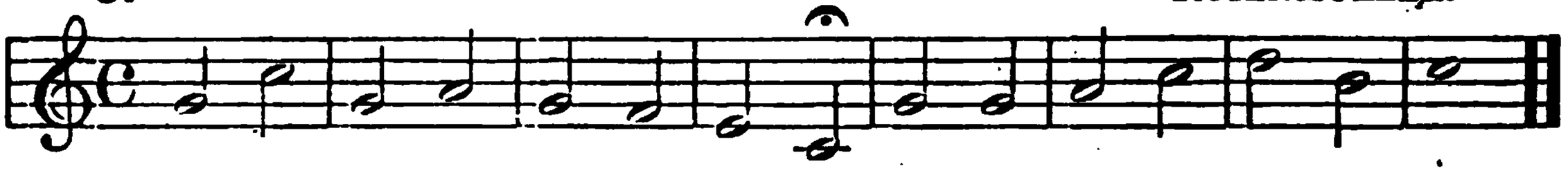
The mediant chord may be preceded by I, V, or VI and occasionally by II or IV. It progresses best to VI, I, or IV and may occasionally progress to any chord. Progression V–III is better than III–V.

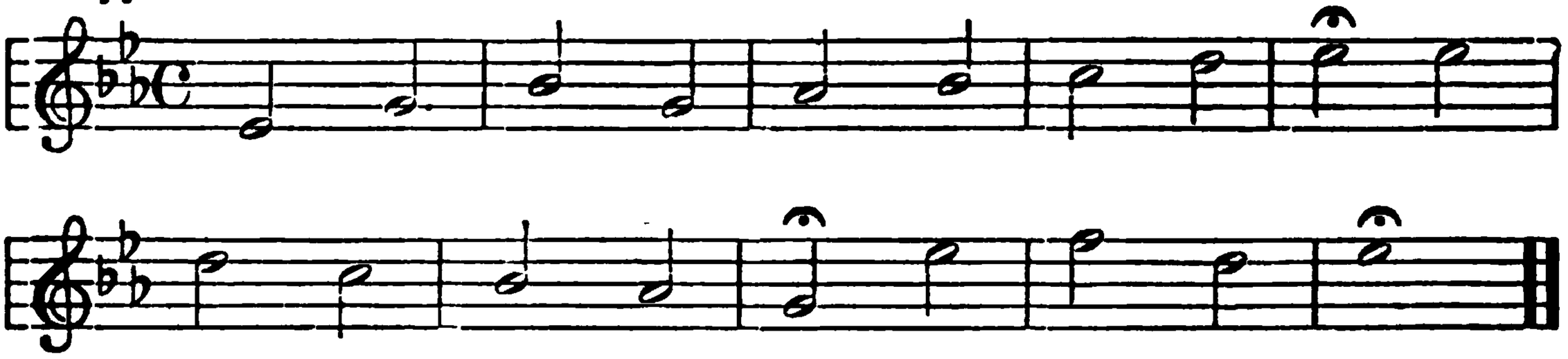
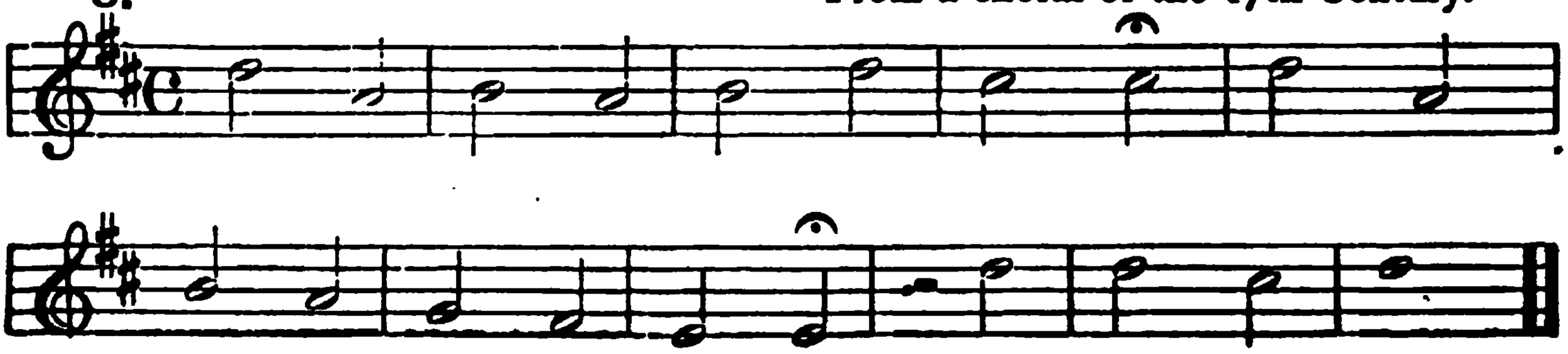
EXERCISES, GROUP 9.

1. J. S. BACH.

2. J. S. BACH.

3.

4. J. S. Bach.

5. Decius.

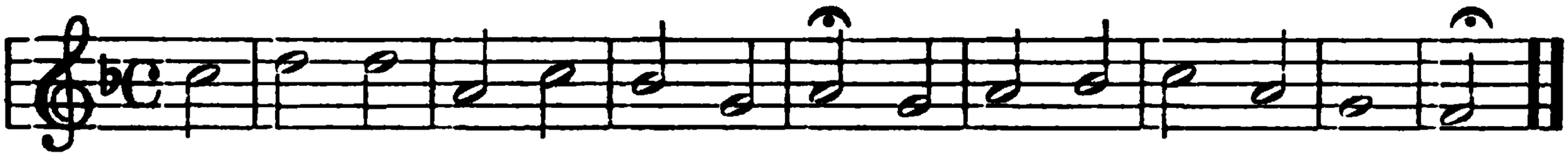


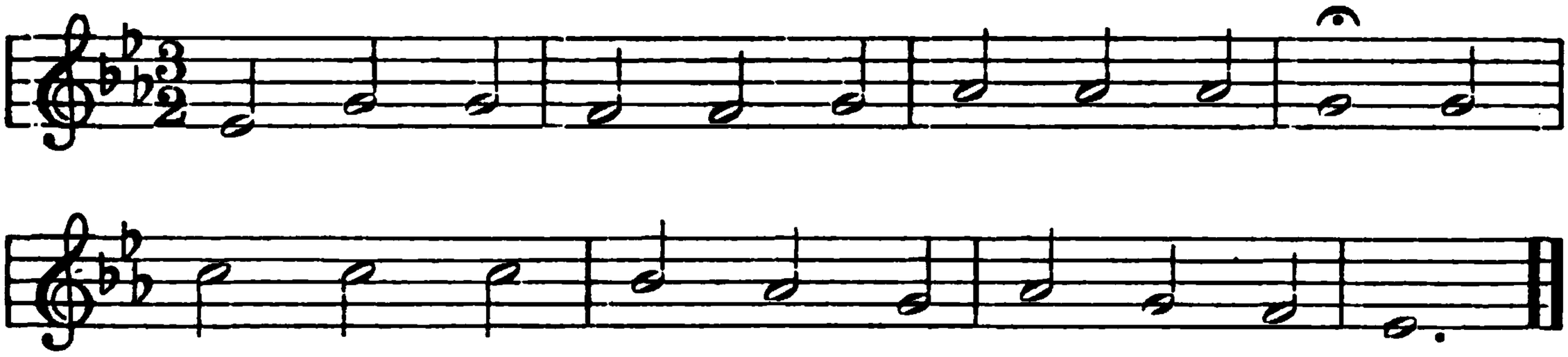
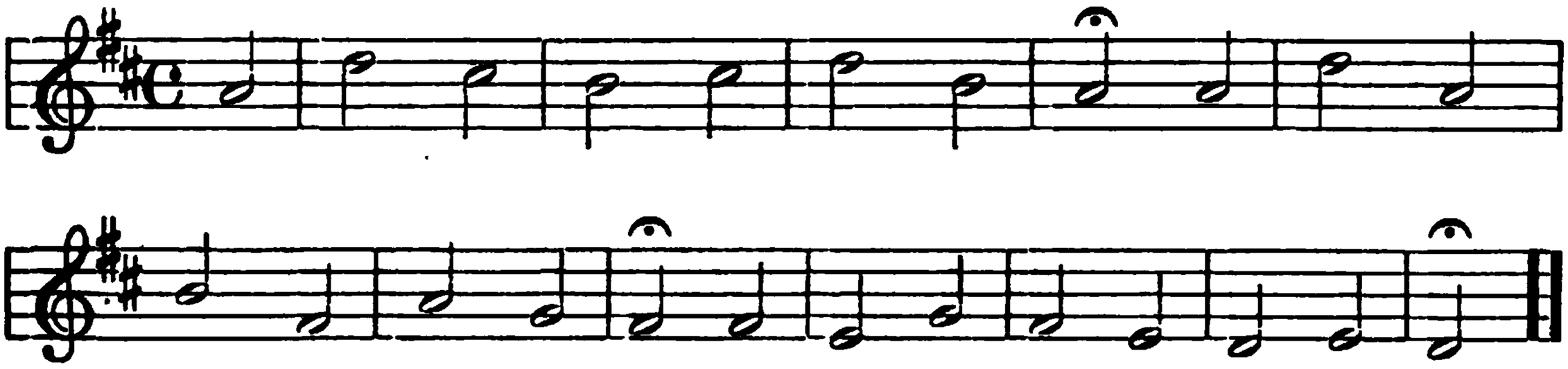
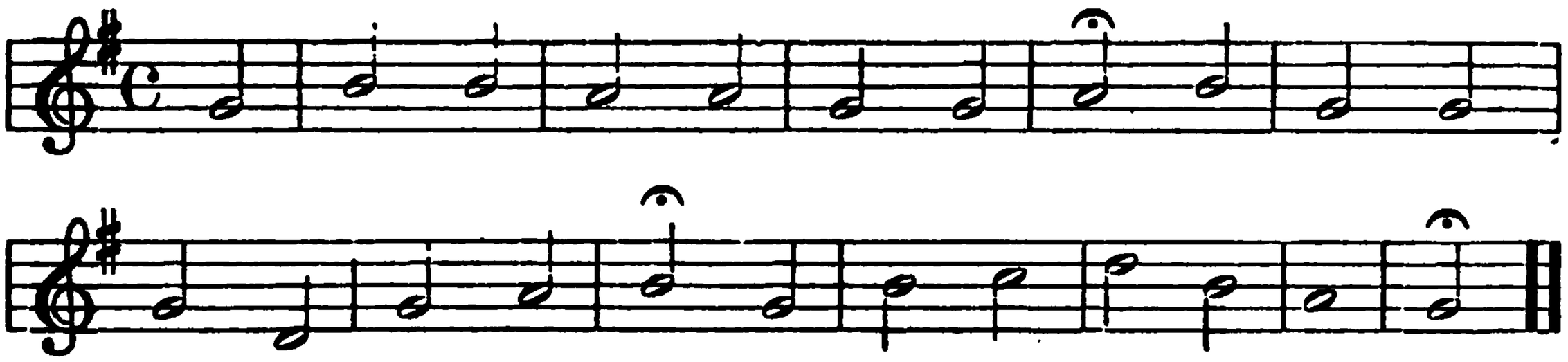
6. Rosenmüller.



7. From an old choral.

8. From a choral of the 17th Century.

9. From a choral of the 16th Century.

10. DACHSTEIN.



11. From a choral of the 17th Century.

12. From a choral of the 16th Century.

13. LUTHER.

14. GOUDIMEL.

15. Major Scale.

CHAPTER VIII.

THE SUBTONIC CHORD.

The subtonic chord is a very common chord and a useful one. The triad differs in formation from the preceding six triads. It is dissonant and active, and consists of root (*ti*), its minor third, and its diminished fifth, and is called a *diminished triad*.

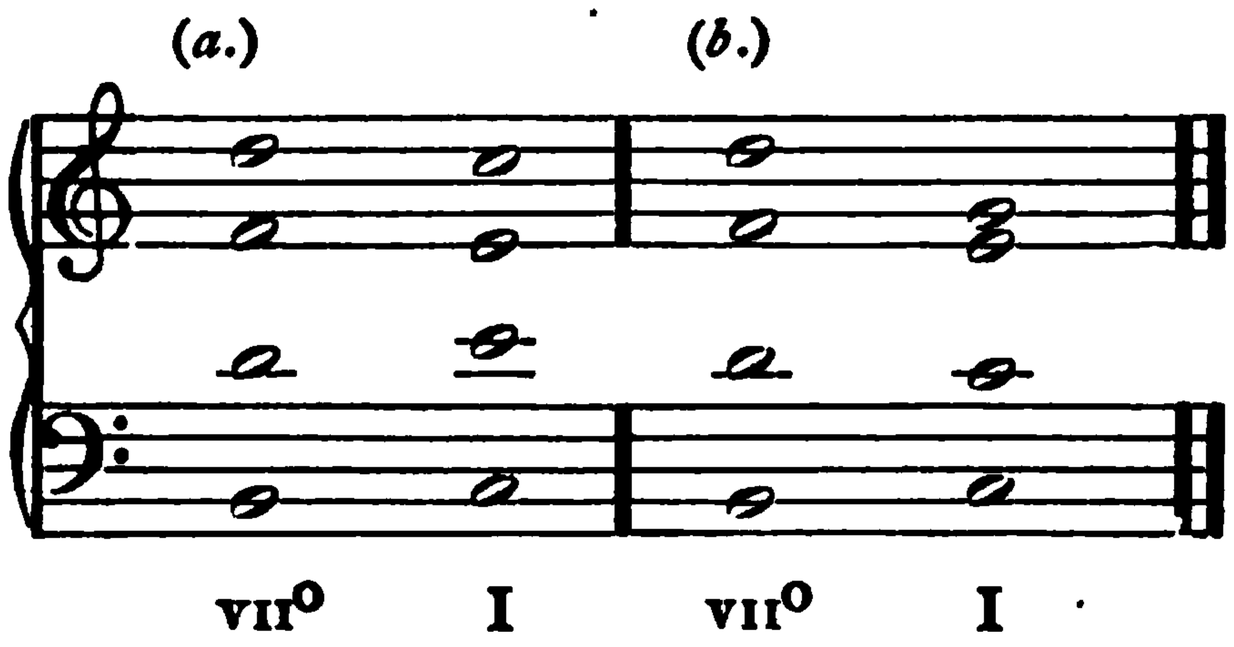
Notice that the other triads are named by their thirds, major or minor, but that the subtonic triad is named by its fifth.

The subtonic chord belongs to the dominant family. The factors of the triad are the same tones as the three upper factors of the dominant seventh chord and progress in the same manner. These facts have led many theorists to call this triad a "dominant seventh chord without root."

Unlike all the other triads, the subtonic triad is never written with doubled root in four-voice composition; it is best with doubled third. The fifth is frequently doubled but the doubled fifth should be avoided as much as possible because it has definite tendency. The musician will often find a doubled fifth as undesirable as a doubled root.

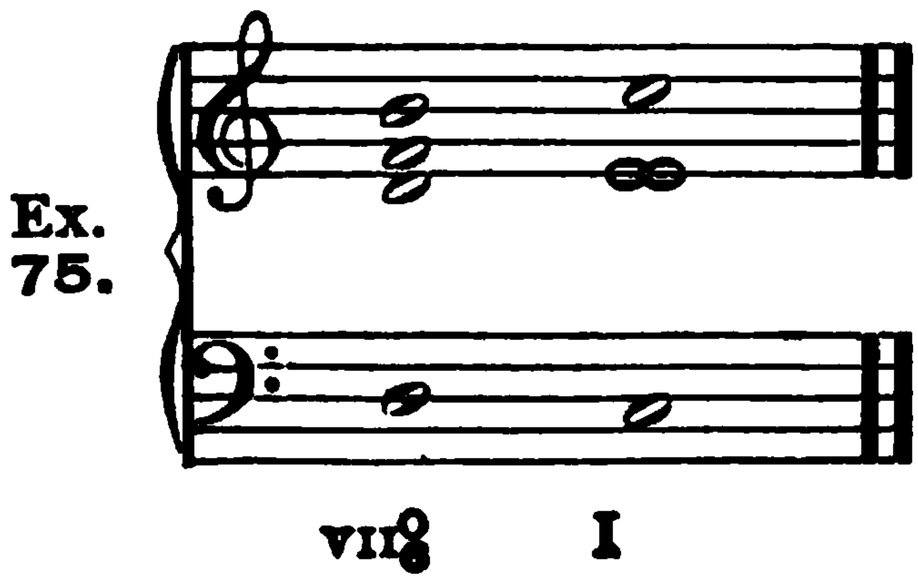
The normal resolution of the subtonic triad is non-cadencing to the tonic triad.

Ex. 74.

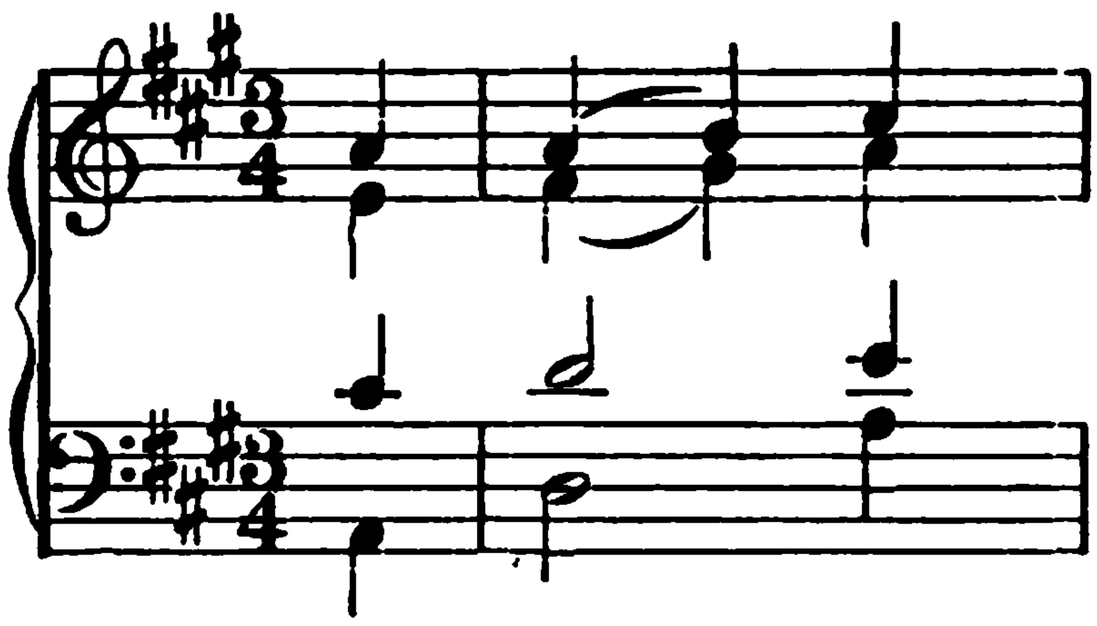


The first inversion of the triad is considered, by many, preferable to root position.

Ex. 75.



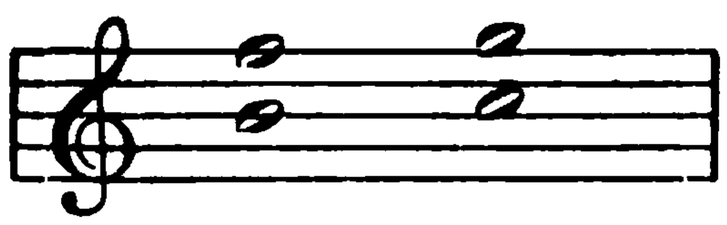
The second inversion of the triad is unusual. Some theorists forbid its use. The following quotation from Bach contains a VII$^{\circ}\frac{6}{4}$ as a result, however, of passing tones.

Ex. 76.

I IV (VII$^{\circ}\frac{6}{4}$) I

The passing tones, however, are of sufficient importance to upset the plagal effect which would be present with the passing tones removed, and the effect, in terms of families, is I–IV–V–I.

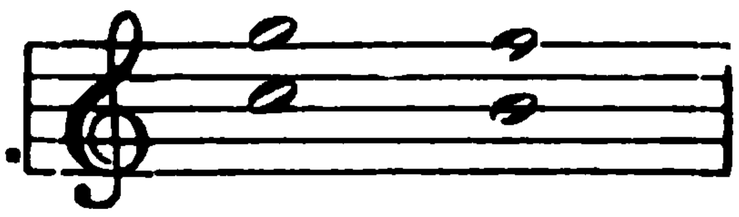
A progression from a diminished fifth to a perfect fifth is usually undesirable.

Ex. 77.



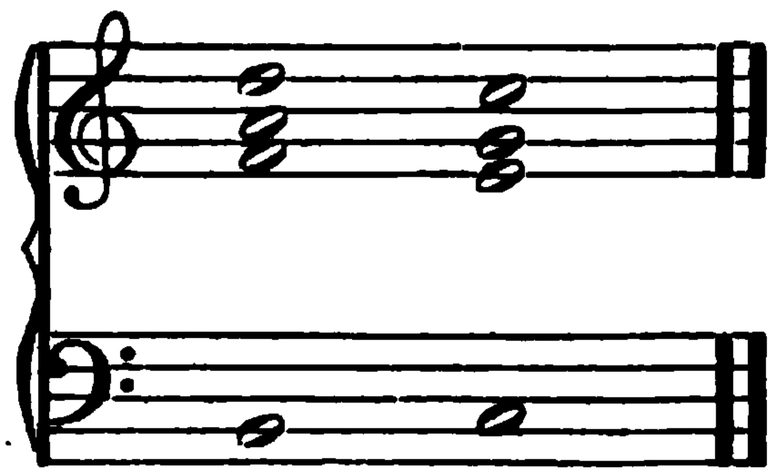
A progression from a perfect fifth to a diminished fifth, however, is good.

Ex. 78.



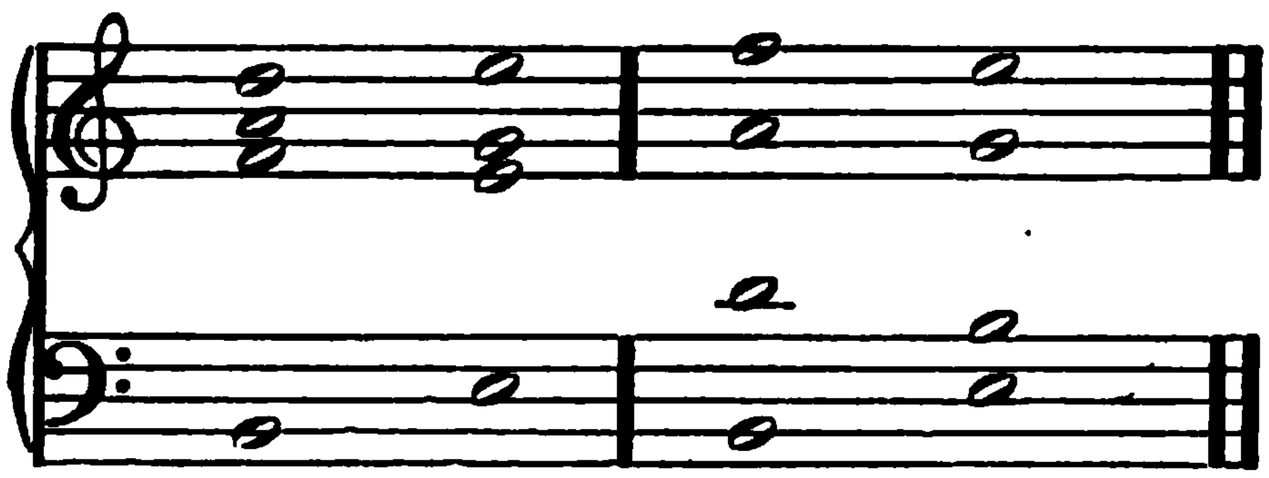
The Subtonic Seventh Chord.

The subtonic seventh chord is the mildest dissonant seventh chord of the major mode. Its factors are the same tones as the upper four factors of the dominant ninth chord and is called by some theorists a "dominant ninth chord without root." Its factors normally resolve, like the corresponding tones in the dominant ninth chord, to the tonic chord.

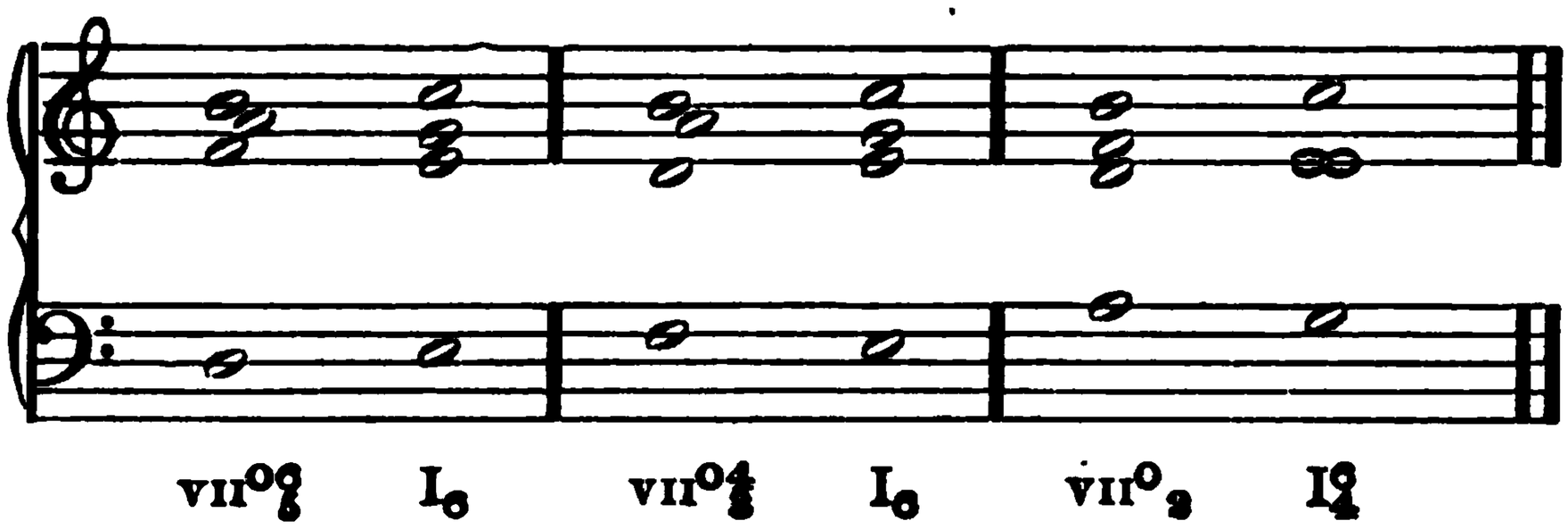
Ex. 79.

VII$^{\circ}{}_{7}$ I

Notice that this normal resolution is non-cadencing.

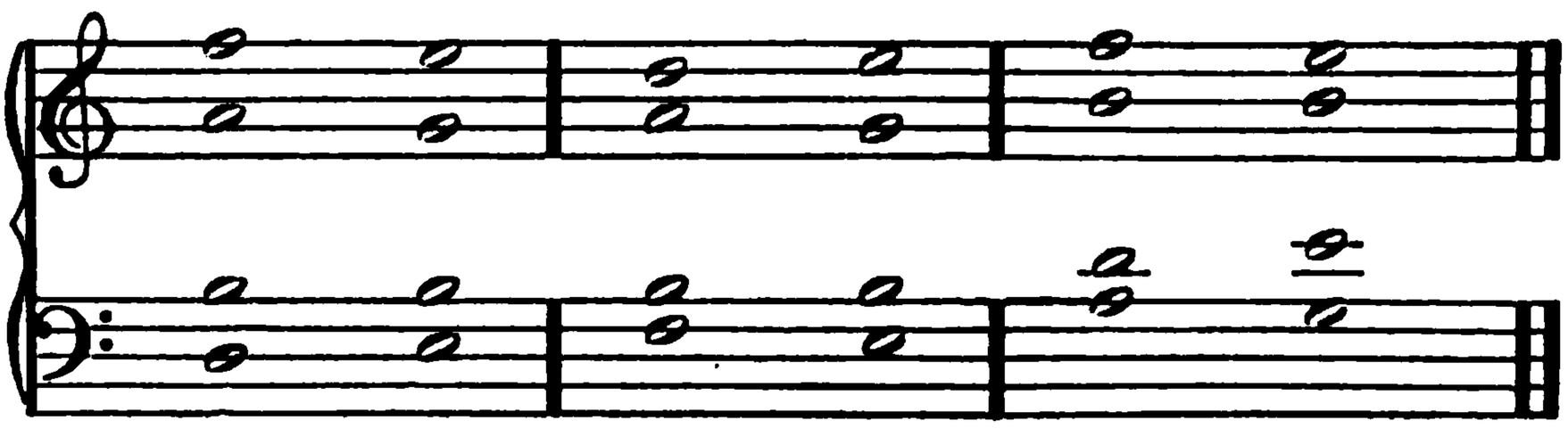
The cadencing resolution of VII°7 is not common.

Ex. 80.

VII°7 III VII°7 III

Examples of the inversions of VII°7 with their resolutions to tonic follow.

Ex. 81.

VII°$^{6}_{5}$ I$_{6}$ VII°$^{4}_{3}$ I$_{6}$ VII°$_{2}$ I$^{6}_{4}$

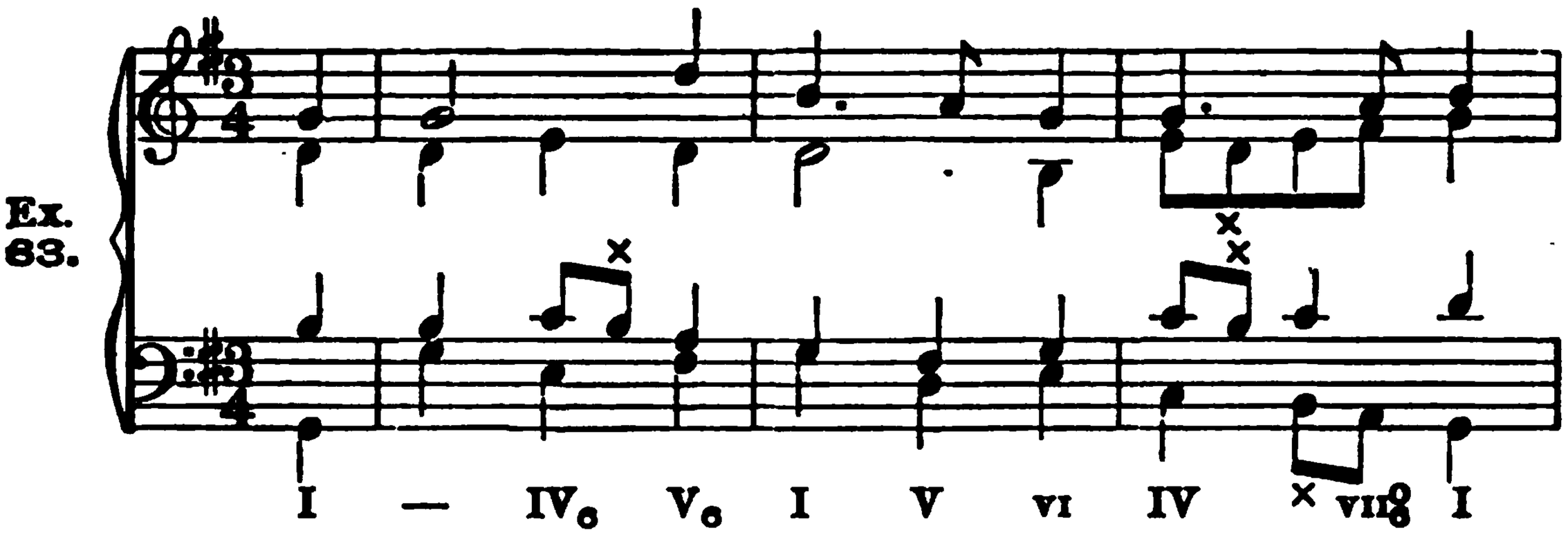
Their cadencing resolutions follow:

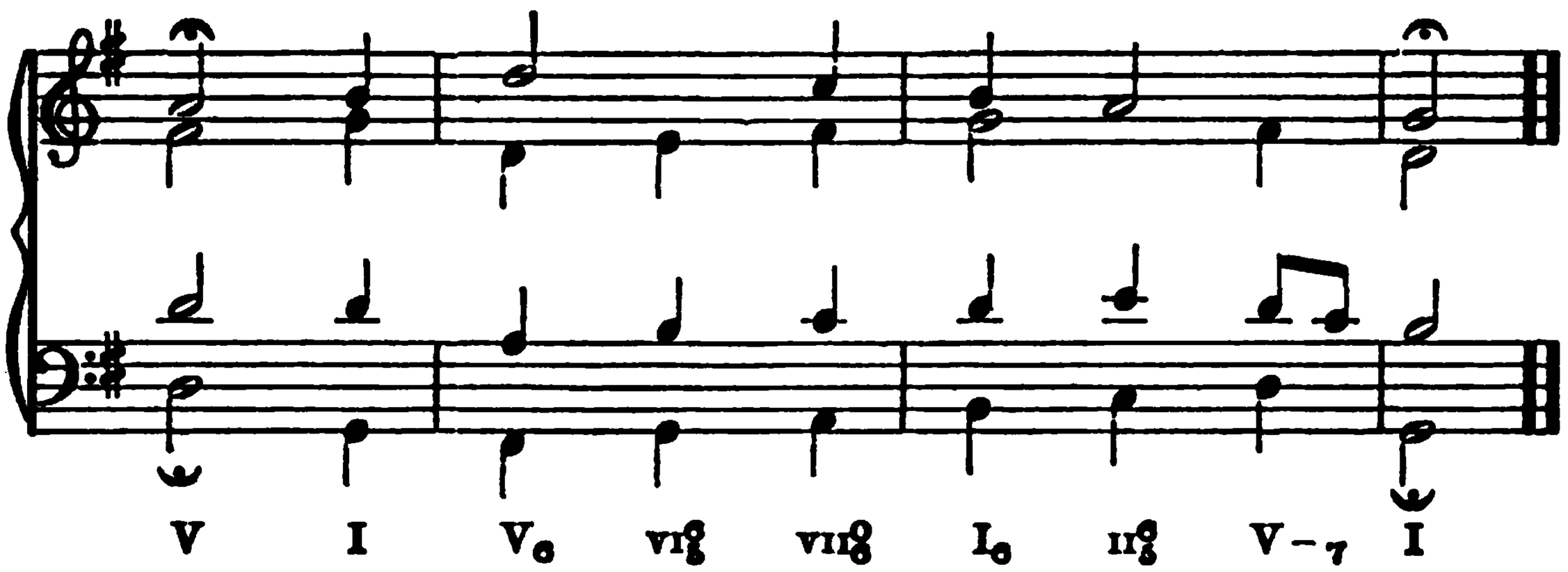
Ex. 82.

The subtonic chord in both modes has suffered much criticism from theorists although it has been and is being used by masters. It is criticized as being "overworked" and that much can be accomplished with it with a minimum of technique. The former criticism could apply as well to the dominant chord and others; the latter criticism, while true, is an academicism. It is true, however, that too much subtonic harmony is not a proof of good craftsmanship, and that where it is used because of a lack of technique and not for effect, it is undesirable.

Quotations follow:

J. S. BACH.

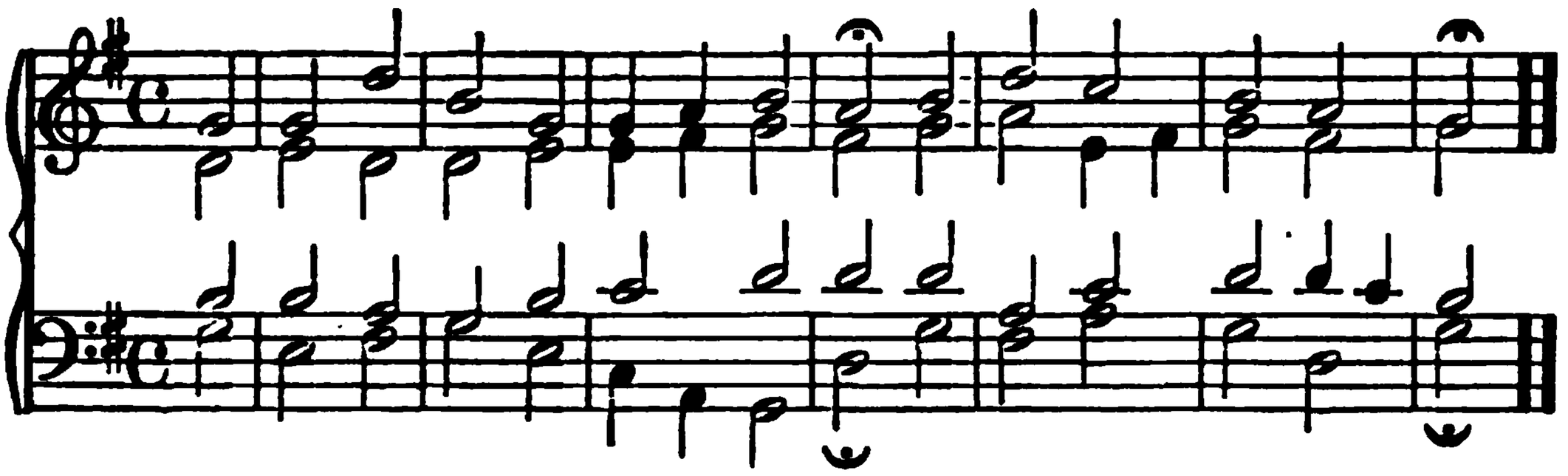
Ex. 83.





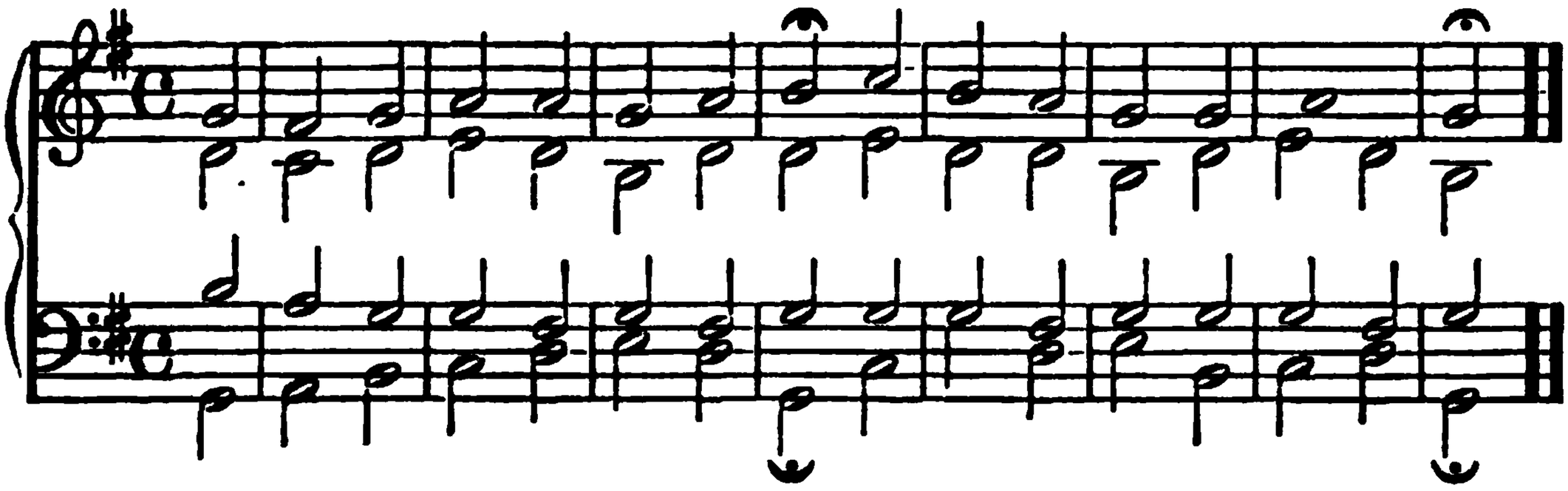
Choral of the Early 17th Century.

Ex. 84.



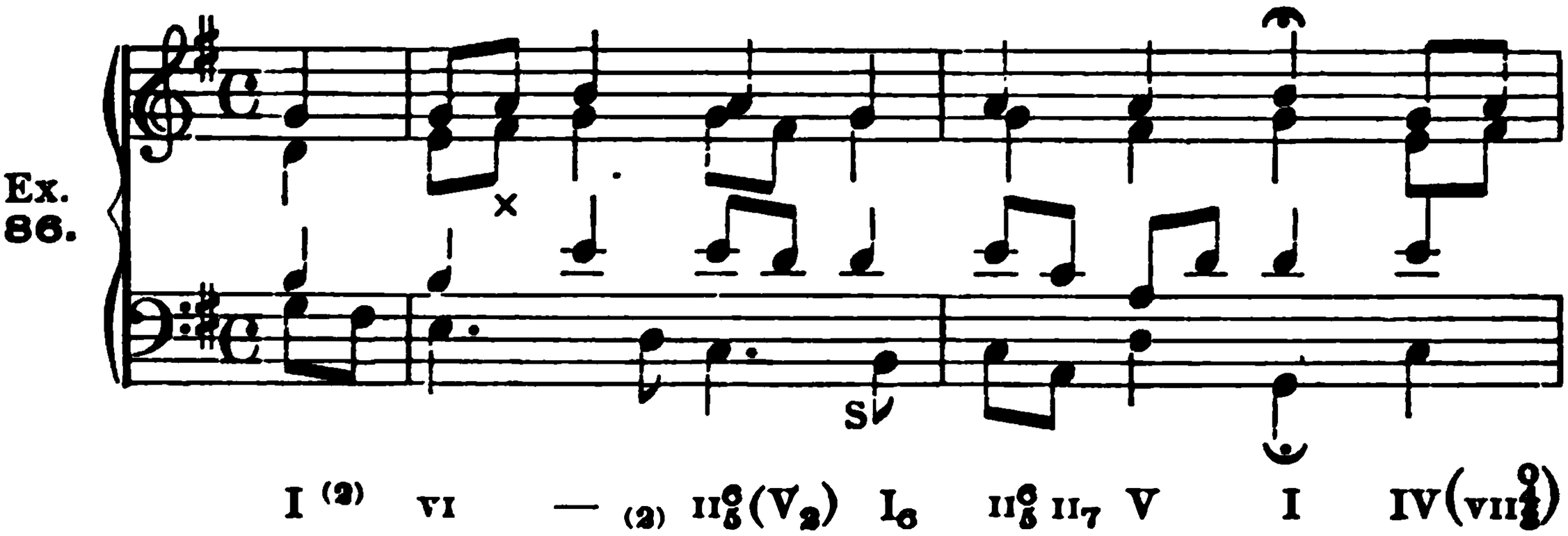
Choral of the Early 16th Century.

Ex. 85.



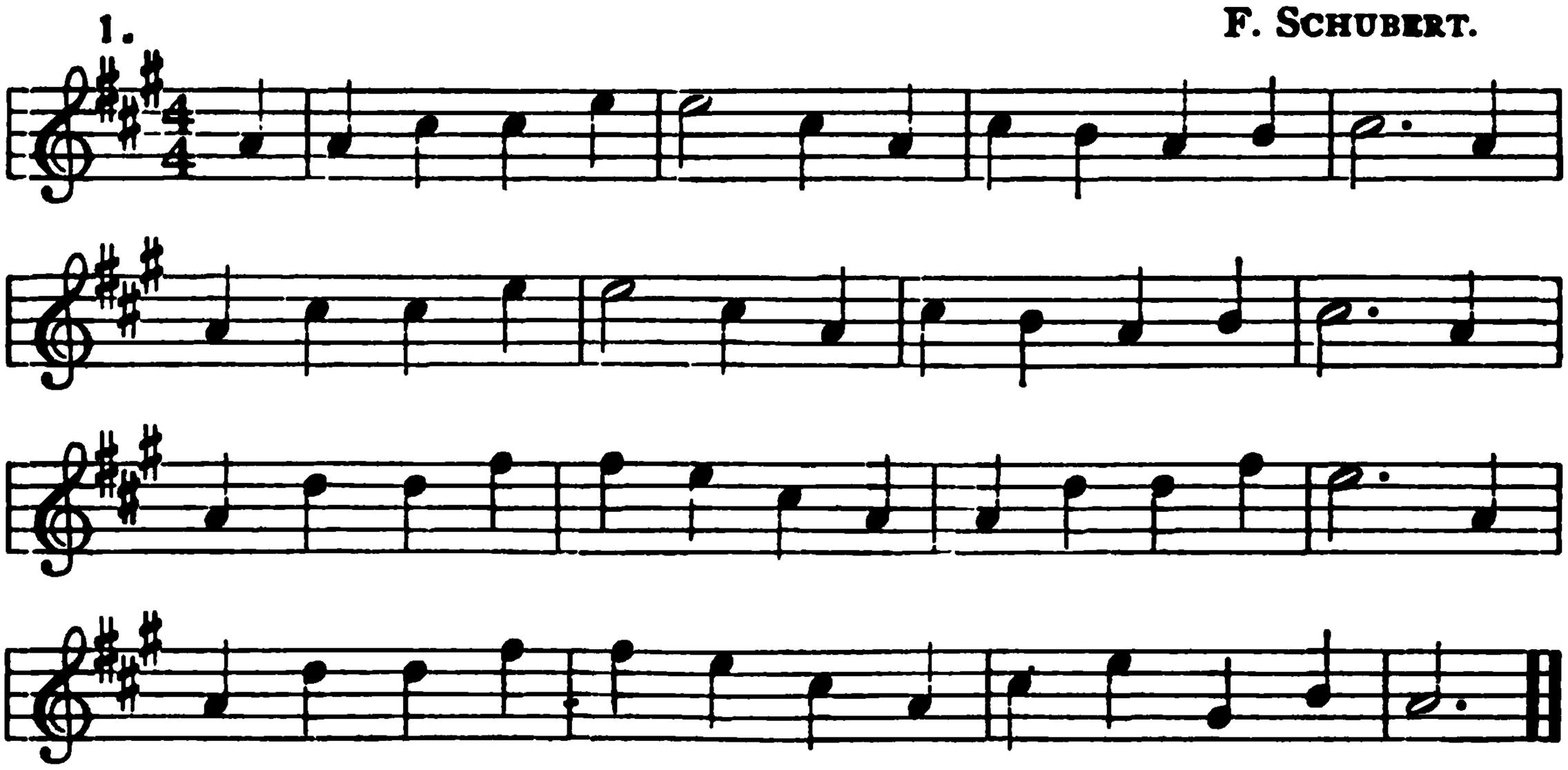
J. S. Bach.

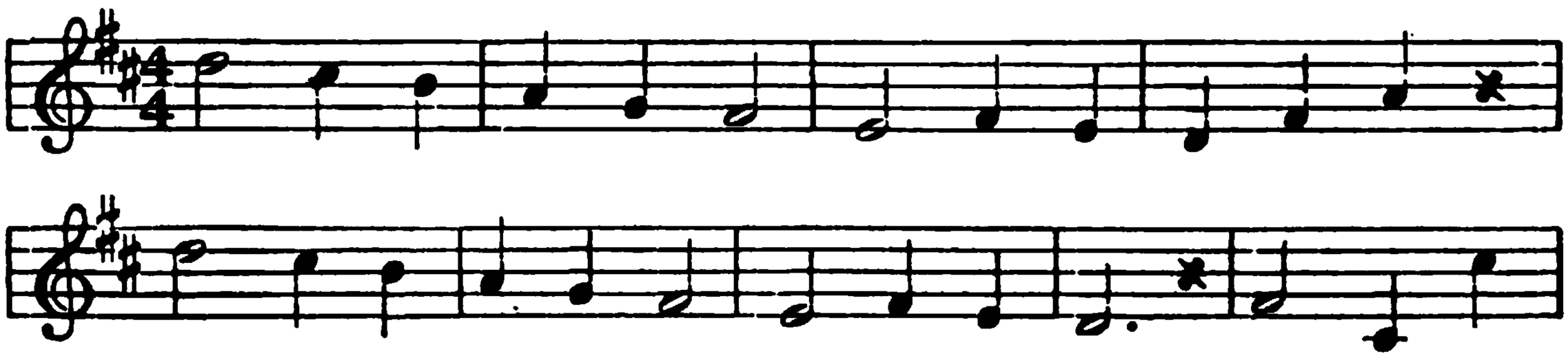
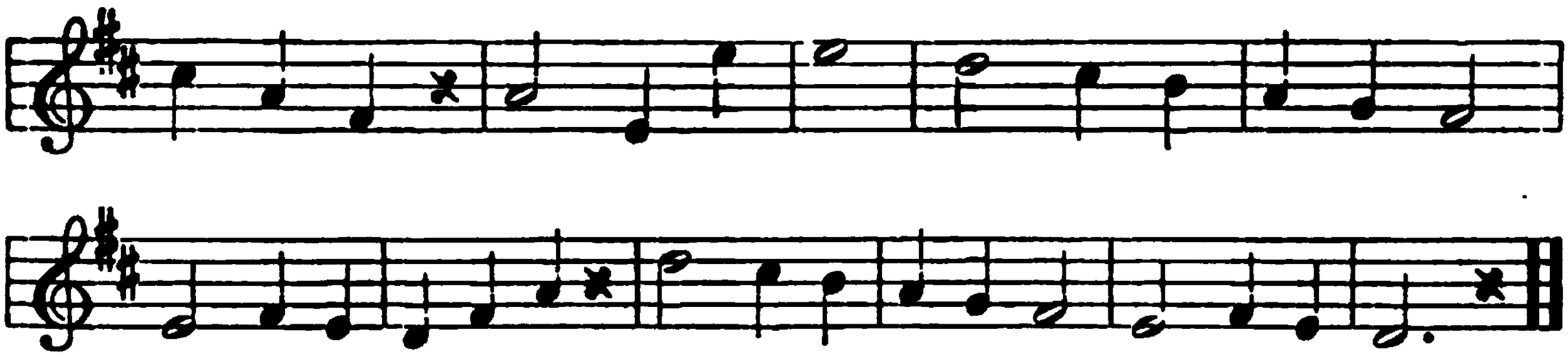
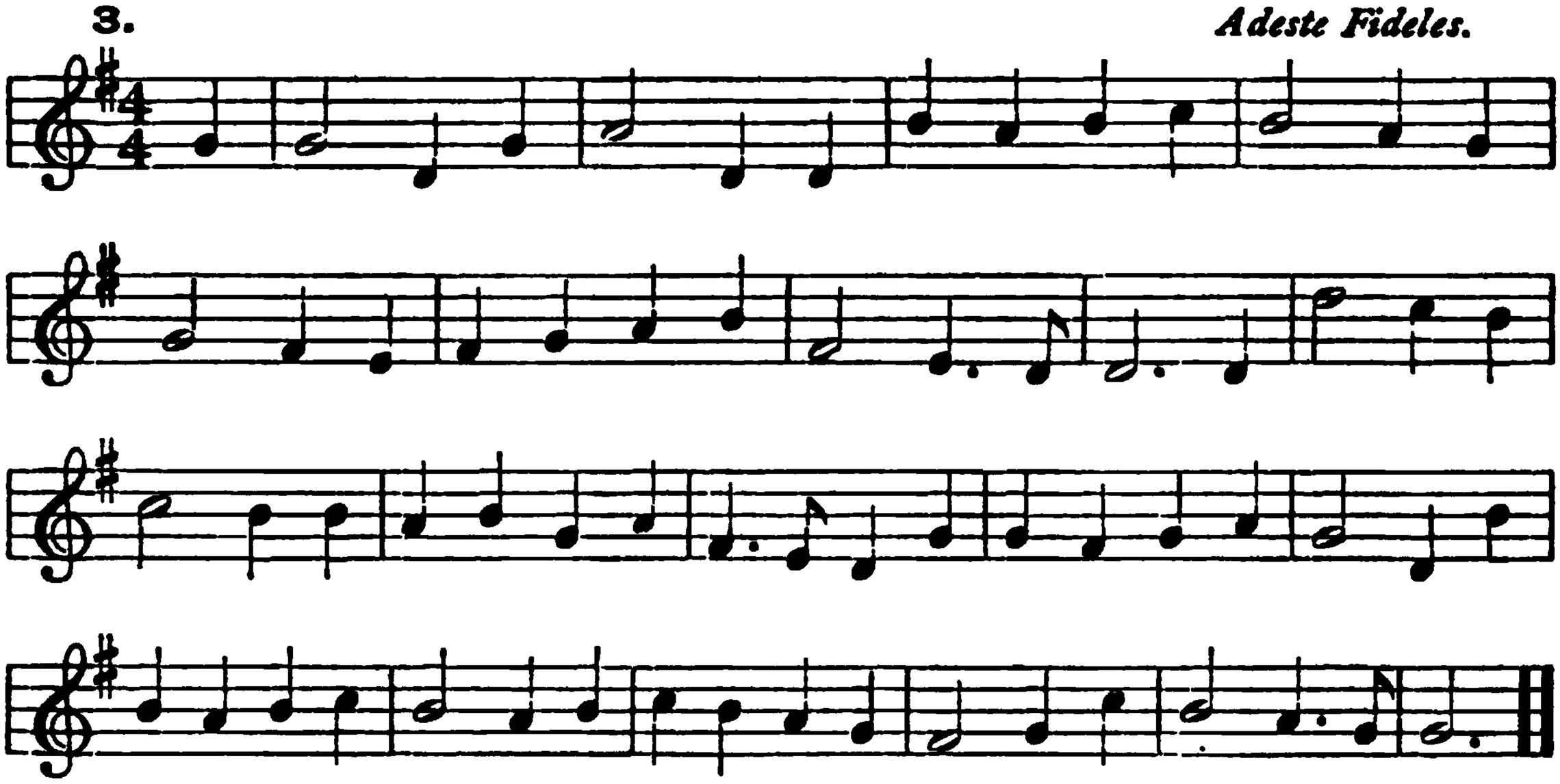
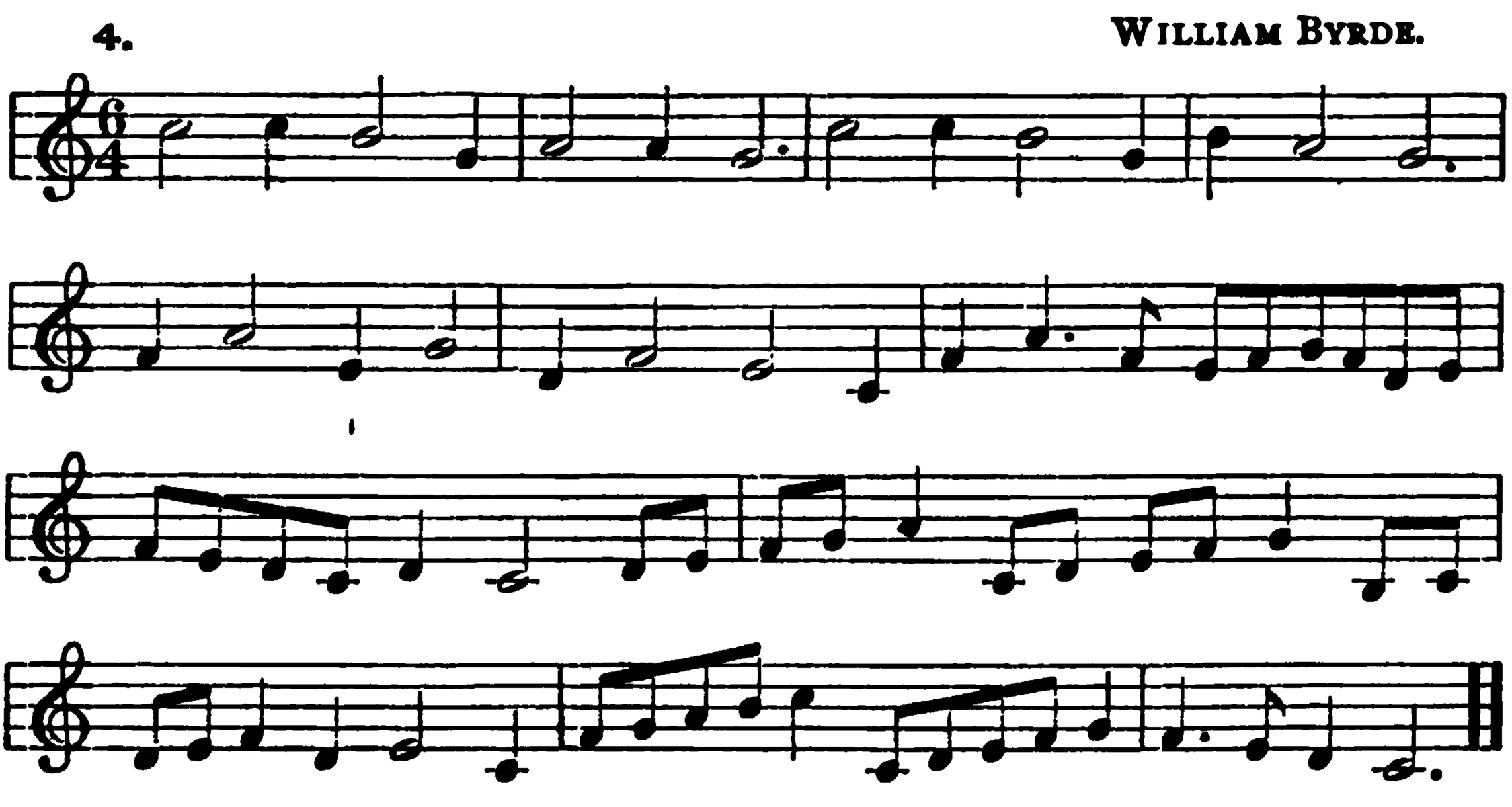
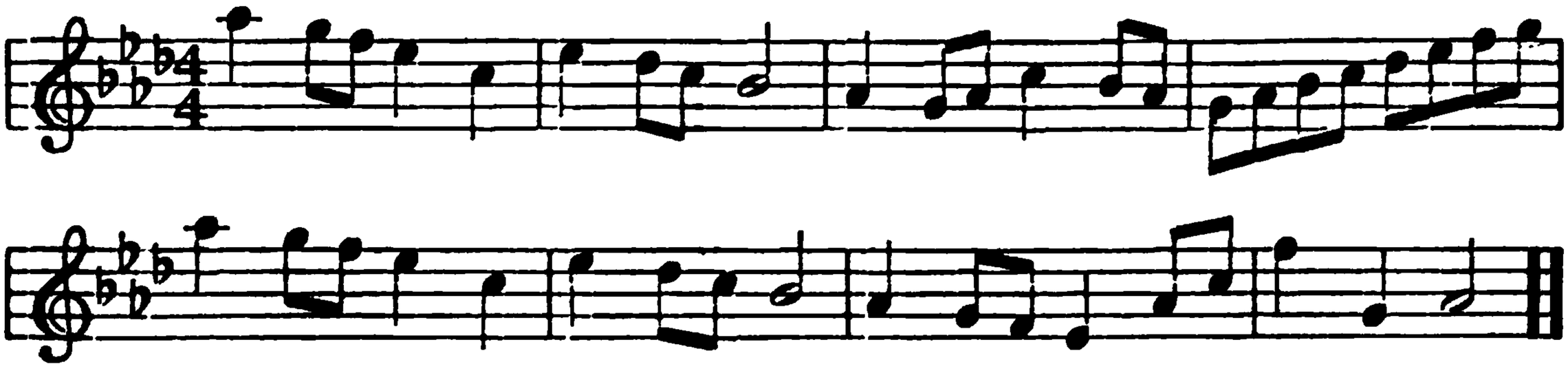
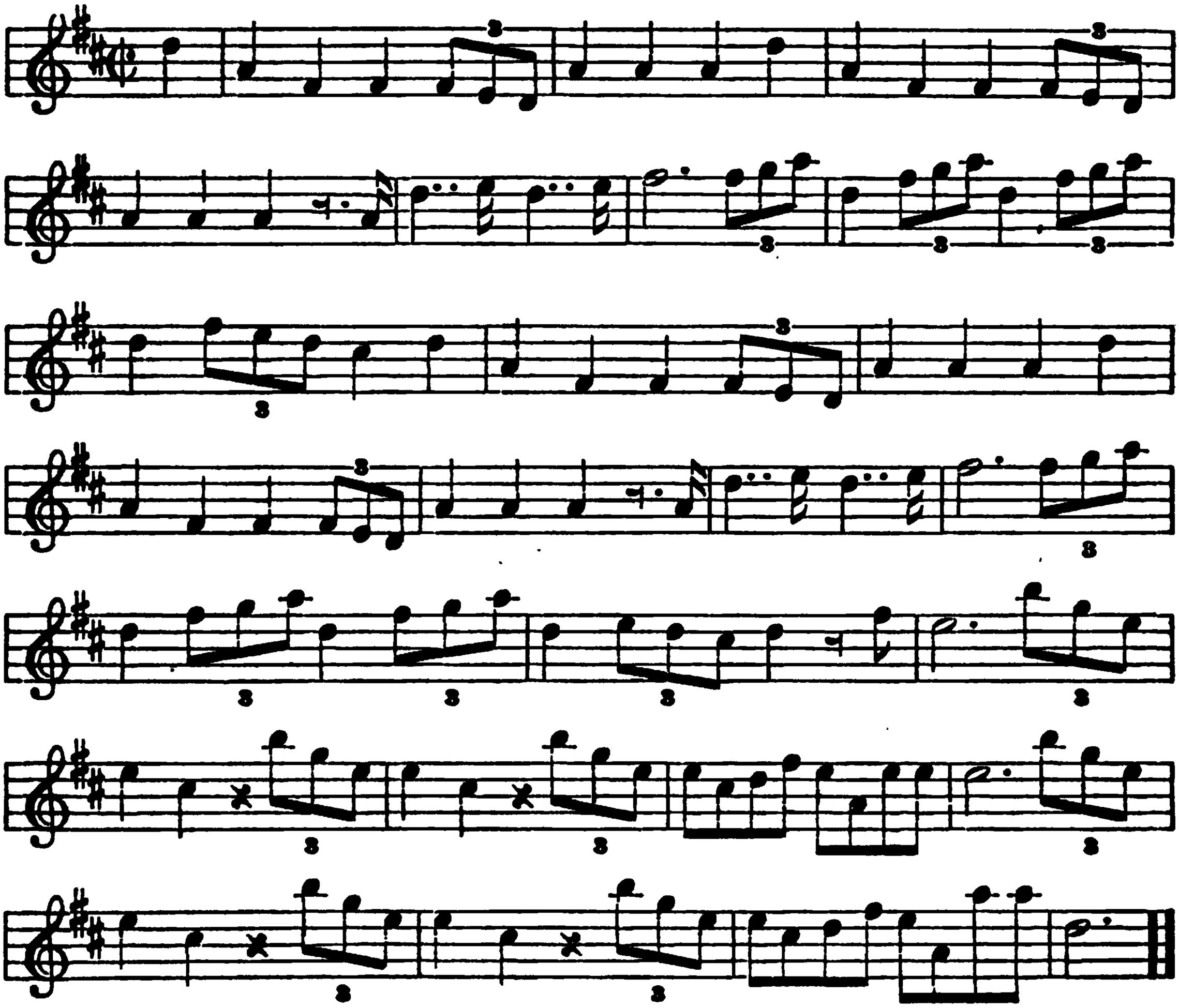
Ex. 86.



Exercises, Group 10.

1.

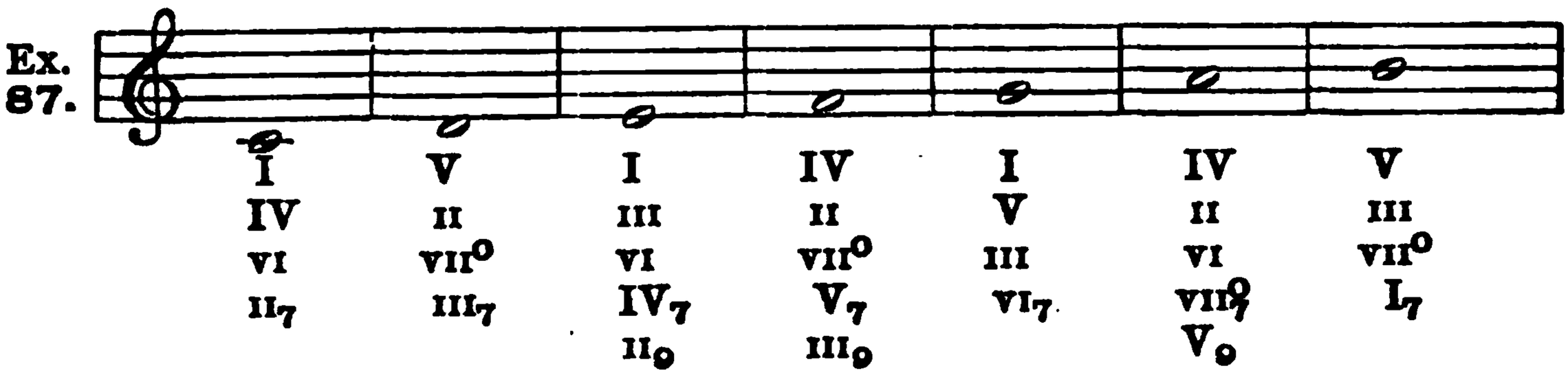
F. Schubert.

2.

G. Donizetti.

3. *Adeste Fideles.*

4. WILLIAM BYRDE.

5. THEODORE LACK.

6. BOIELDIEU.

CHAPTER IX.

RECAPITULATION AND SUGGESTIONS.

All the diatonic triads, all the seventh chords, the practical ninth chords and inversions in the major mode have been considered and the student should now be capable of harmonizing any major diatonic melody.

A table follows showing the chords with which each scale step may be harmonized.

Ex. 87.

The table is not complete, for example: V_7 is listed only once in the table but it may be used to harmonize any tone which is a factor in the chord. The table is not planned to show the relative frequency of use or relative importance of the chords; major triads are given first followed by minor triads, then diminished triads, then seventh chords and lastly, ninth chords. The tones which are not listed as ninths in ninth chords are *do*, *re*, *so* and *ti*. The respective ninth chords of which these tones are ninths are $VII^{\circ}{}_{9}$*, I_9, IV_9, and VI_9. Such ninth chord formations are nearly always the result of non-chordal tones. Remember that IV_7 and I_7 are uncommon and that some of the other chords should be used sparingly.

The following table shows possible chord progressions.

I may progress to V, IV, VI, III,	occasionally to II, VII°	
II may progress to V, VI,	occasionally to I, VII°	seldom to IV, III.
III may progress to VI, IV, I,	occasionally to VII°	seldom to II, V.
IV may progress to V, I, II,	occasionally to VI, III, VII°.	
V may progress to I, VI, III, II,	occasionally to IV,	seldom to VII°.
VI may progress to IV, III, II, V,		seldom to I, VII°.
VII° may progress to I, III, V,	occasionally to IV,	seldom to II, VI.

A table of chord progressions is valuable only as a mechanical guide and cannot be given as a law. The different stages in the evolution of music influence such a table† but there is stability in a generalization of chord families. Such a generalization is governed by natural laws and change only in the event of a change in scale system. The generalization is as follows:

The subdominant family trends to the dominant family.
The dominant family trends to the tonic family.
The tonic family is free.

Within a family, the principal member may progress to a subordinate member but the reverse of this should be avoided.

Progression V–VI is best with both chords in root position. The first inversion of VII° is preferable to root position or second inversion.

Consecutive perfect fifths and octaves are undesirable. Concealed fifths and octaves are objectionable in outer voices when both parts progress to the fifth or octave by skips.

Awkward melodic skips, such as augmented intervals and skips greater than an octave, should be avoided.

*See Chapter XIII.

†"and the ear, like the eye, soon 'accomodates' itself to new perspective and unrelated harmonies." Huneker.

Avoid writing for any length of time in the extremes of any voice compass. Extremes of a voice compass are more easily intonated where approached stepwise. Be sure that each part is singable.

Roots are, in general, the best chord factors to double. Doubled fifths are usually better than doubled thirds. It is better to double thirds in minor chords than in major triads. These principles of doubling, however, are subservient to principles of good voice leading. The subtonic triad presents an exception to the general principles of doubling; the third in the subtonic triad is the best factor to double. The fifth in a six-four chord is usually the best factor to double, especially in the cadencing six-four. Avoid doubling tendency factors.

The best factor for omission is the perfect fifth. The root may be omitted in the tonic six-four chord. A tonic six-four chord is sometimes written at the cadence with omitted third.

Factors forming a dissonant are best approached in contrary motion.

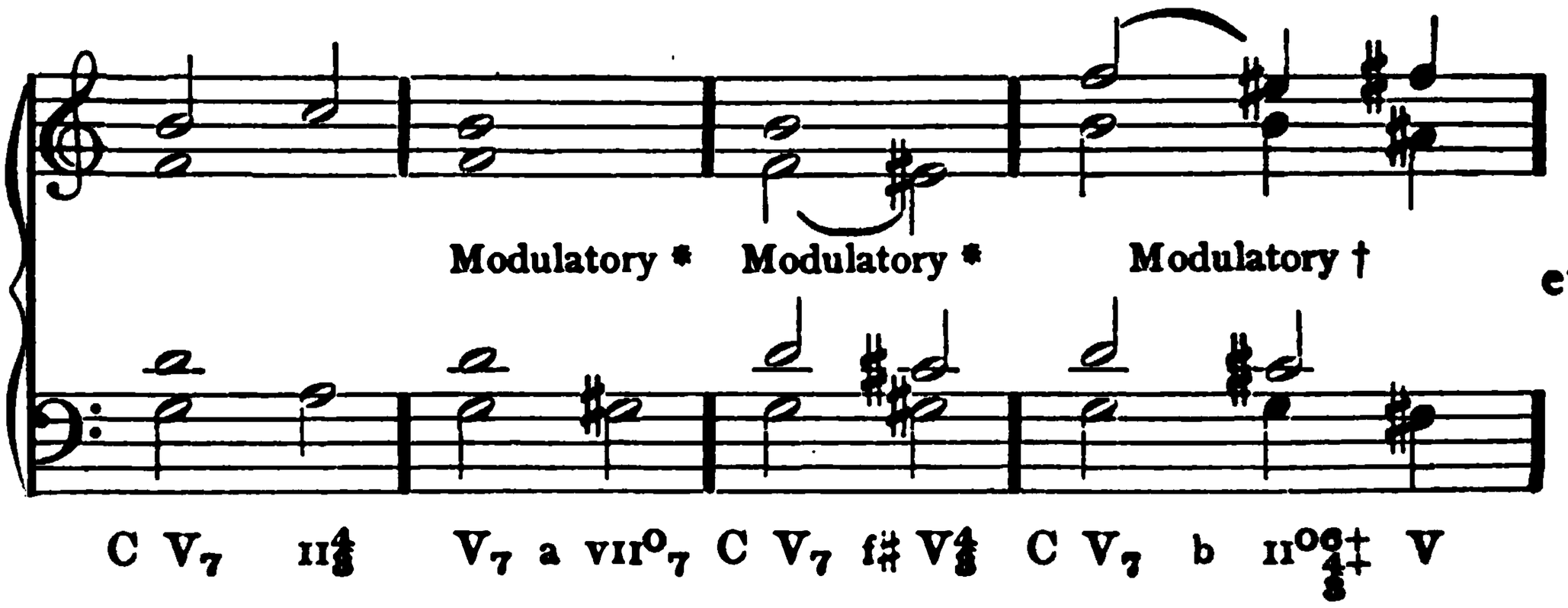
Diminished intervals resolve by contraction:

The downward diatonic tendency of chord factors seven and nine is stronger than the normal scale activity or inactivity as the case may be. In the dominant seventh and ninth chords, the mediant seventh and ninth chords, and the subtonic seventh chord, the resolution tendency of the sevenths and ninths is analogous to the scale tendencies of these tones.

In some chord progressions, factor seven or nine may remain stationary or, which is the same, be enharmonically changed, thus:

Ex. 88.

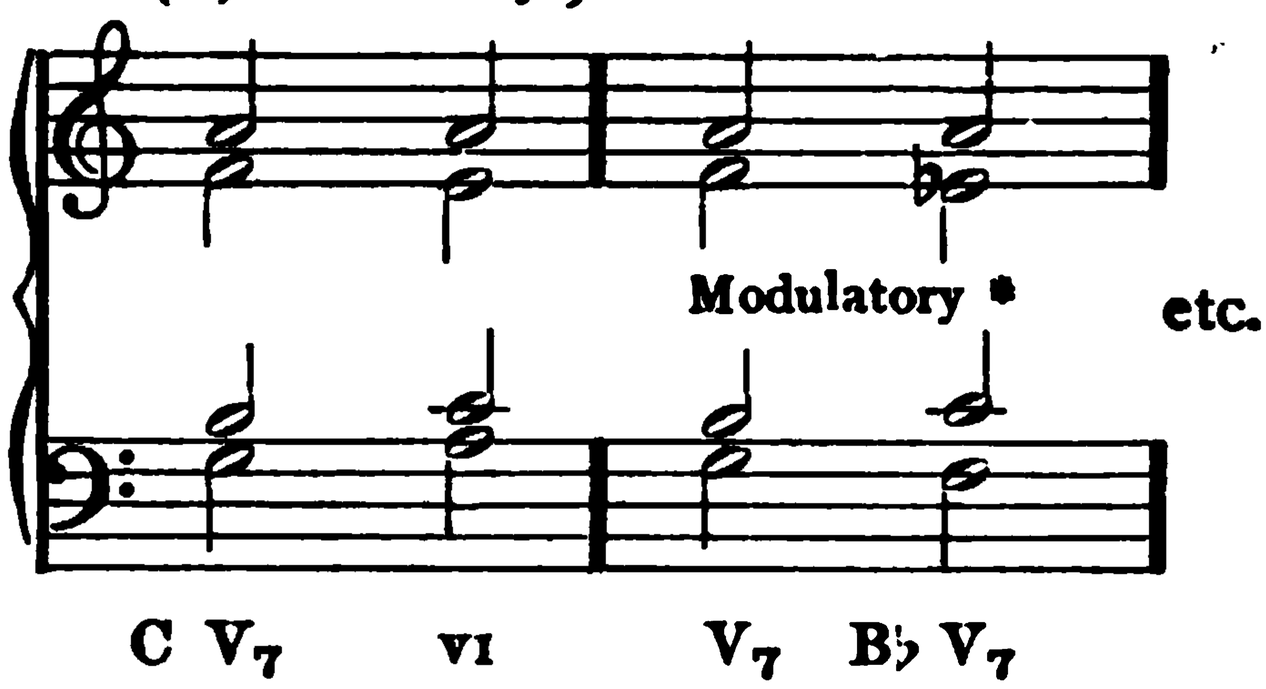
(*a.*) Stationary 7th



* See Chapter XIV.

† See Chapters XII and XIV.

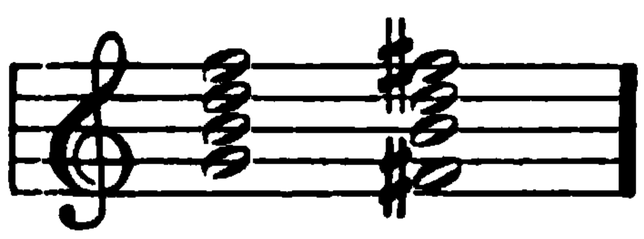
(*b.*) Stationary 9th

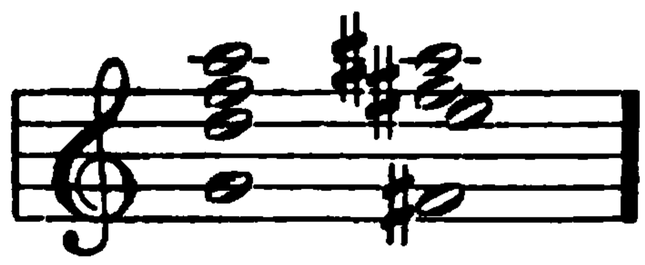


Occasionally, factor seven or nine may progress upward stepwise, usually chromatically:

(*a.*) Modulatory *

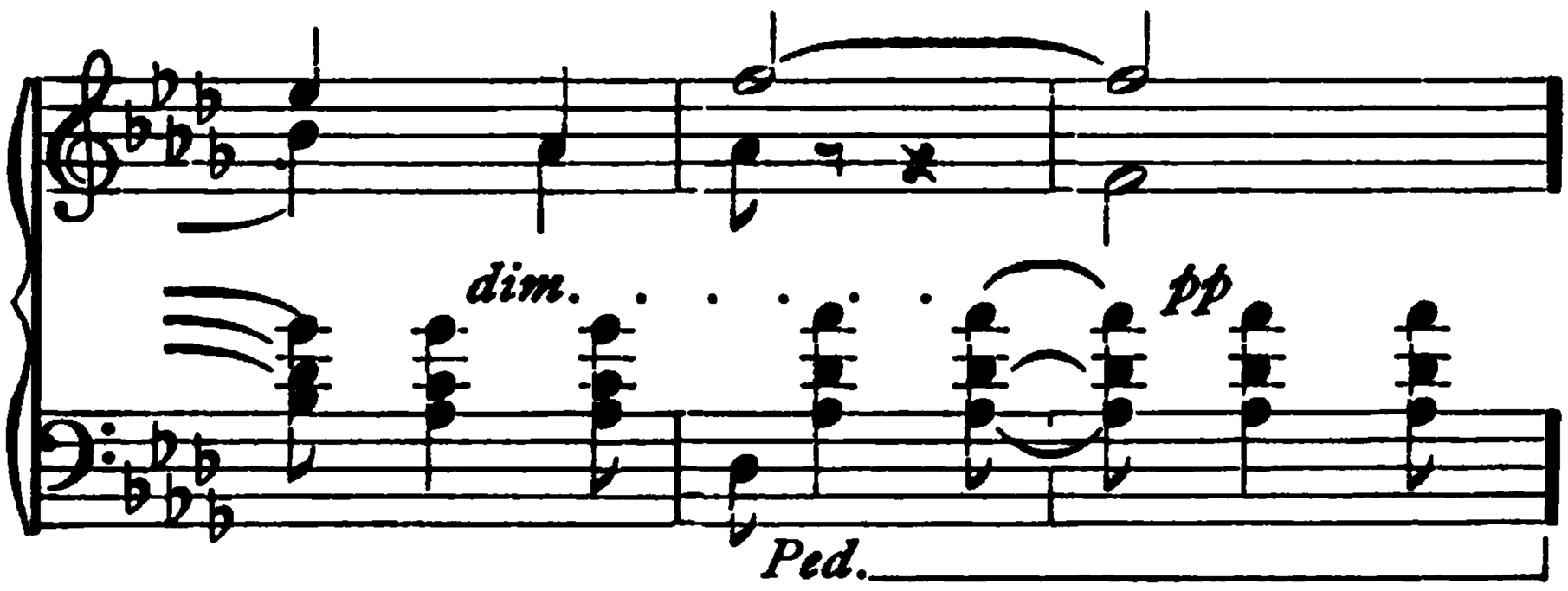
Ex. 89.



(*b.*) Modulatory *

Rarely, factor seven or nine is quitted by leap. Such a device should only be used by one thoroughly experienced in composing.

Most compositions end with the tonic in the highest voice and all compositions end with the tonic in the lowest voice (root position).† The penultimate tone of a melody is usually either *ti* or *re*, sometimes *so*, occasionally *fa* but seldom *la*. Schumann's *Warum* is quoted as an example of a composition ending with the third in the highest voice:

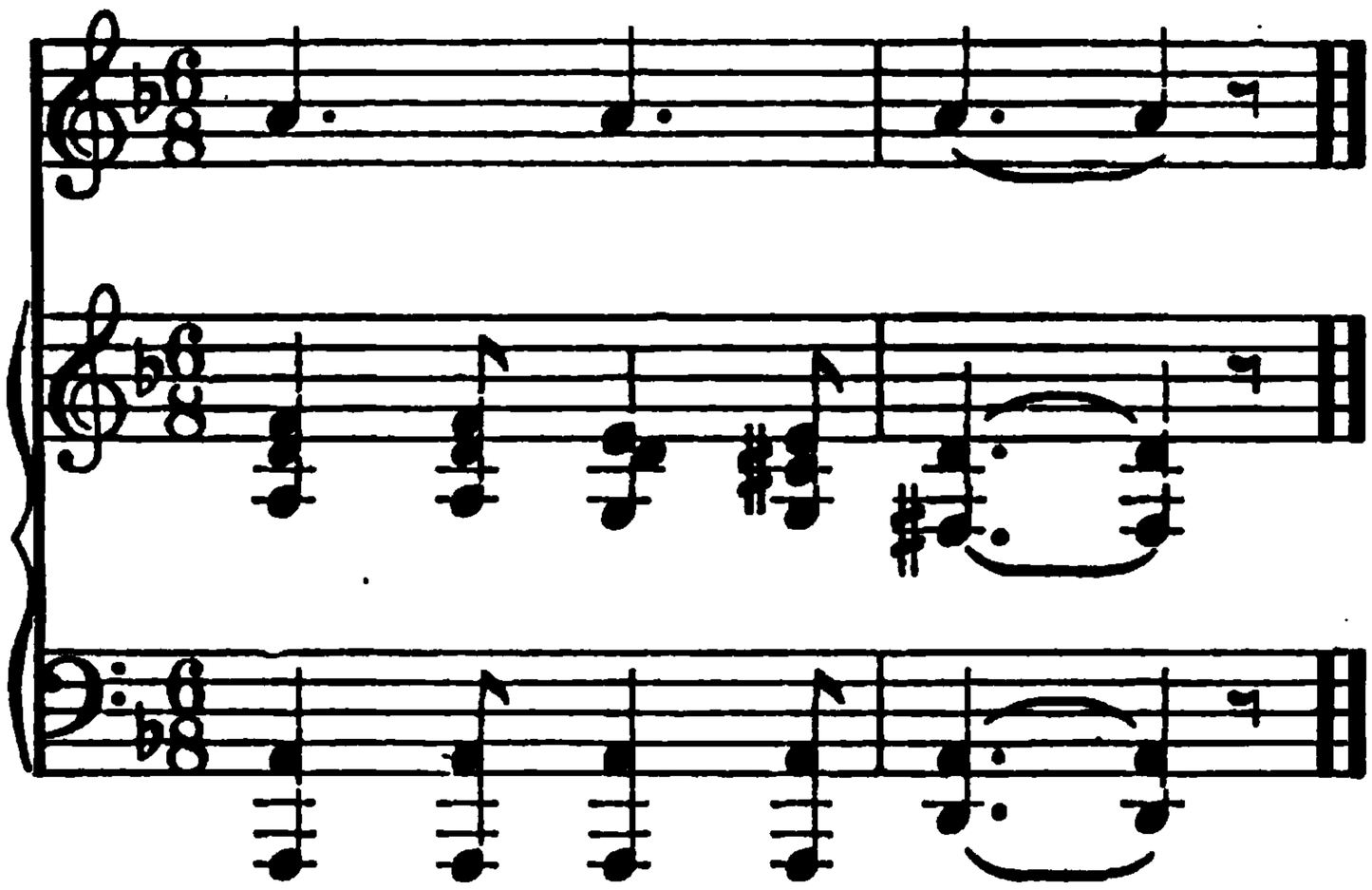
Ex. 90.



Robert Franz's *Gute Nacht* is quoted as an example of a composition ending with the fifth in the melody:

*See Chapter XIV.

†See Chapter XIII.

Ex. 91.

The plagal close, when used, is in addition to the real ending.

When using open position, keep the voices as nearly equidistant as is possible. Avoid grouping the two upper voices and the two lower voices with a wide interval between the two groups. The soprano and alto or the alto and tenor should seldom be separated by an interval greater than an octave.

Open position is usually preferable for strong dissonant chords. The ninth in ninth chords should usually be separated from its root by an interval of at least a ninth. A dissonant should not be resolved to a fixed unison.

Voice leading governs the choice of omissions and duplications, especially in ninth chords.

Dissonant chords are most effective upon a strong pulse.

Avoid the repetition of a harmony or bass note from a weak to a strong pulse.

Exercises 8–16 in Appendix C are now available.

CHAPTER X.

THE MINOR MODE.

The difference in the triad formations between the major and minor modes may be seen by a comparison of the numerical symbols:

Major Mode.....I, II, III, IV, V, VI, VII°.
Harmonic Minor.....I, II°, III+, IV, V, VI, VII°.
Ascending Melodic Minor.....I, II$^{\flat5}$ III+, IV, V, VI°, VI°.
Descending Melodic Minor (primitive)....I, II°, III, IV, V, VI, VII.

In composing, the harmonic form of the minor mode should be the working basis. The melodic forms (ascending and descending) are used principally for melodic purposes although advantages in part writing frequently accrue from the use of chords of melodic minor formation. VI° and VII should be avoided where monotonality is desired.

A comparison of the triads of the major mode with those of the harmonic minor shows two triads which are alike, V and VII°. All other triads differ. The harmonic minor mode has two minor triads (I and IV), two major triads (V and VI), two diminished triads (II° and VII°) and one augmented triad (III_+).

An augmented triad is formed with major third and augmented fifth. Such a chord is dissonant and active.

Augmented intervals resolve by expansion.

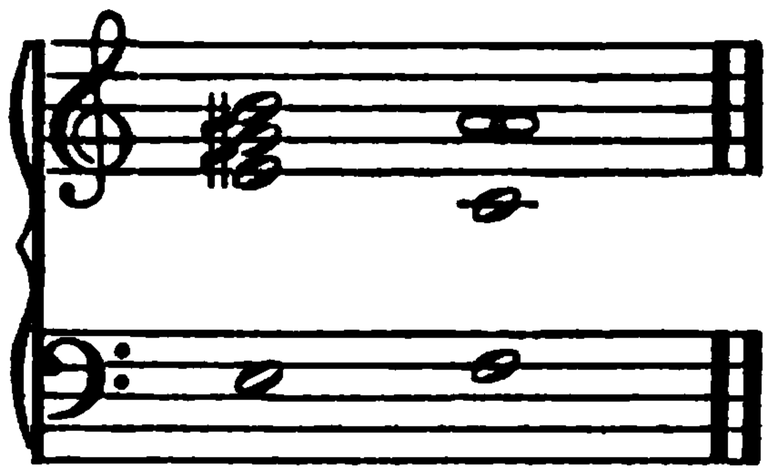
All that has been said of the chord progressions in major is applicable in the minor mode.

More augmented intervals are to be found in the minor mode than are found in the major. In the harmonic minor mode, an augmented second exists between scale steps six and seven, an augmented fifth between three and seven, and an augmented fourth between four and seven. Melodic progressions of all augmented intervals should be avoided by those not experienced in part writing.

The augmented fourth and fifth are easily avoided but some difficulty is often experienced with the augmented second. The difficulty exists in progressions V–VI and II°–V.

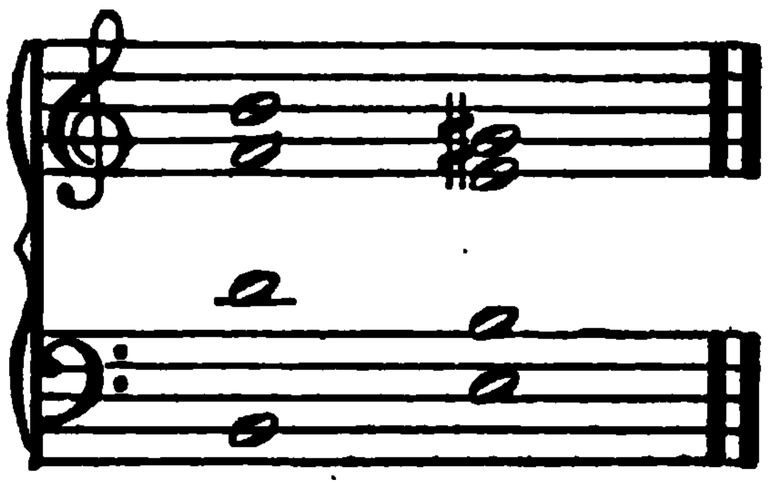
In progression V–VI, double the third in VI instead of the root, thus:

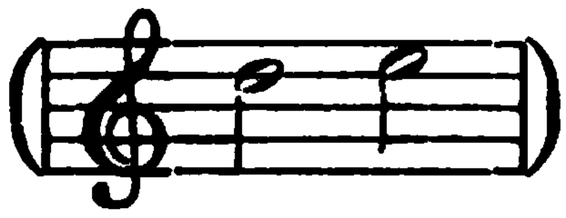
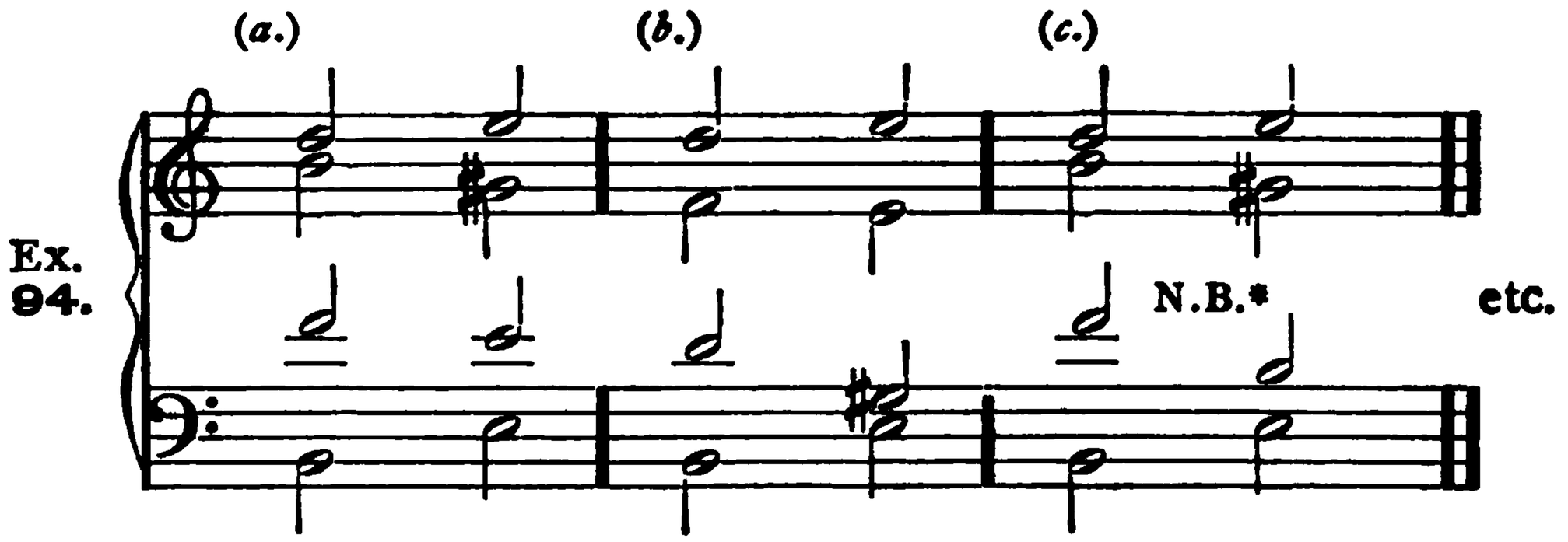
Ex. 92.



In progression II°–V, lead the upper voices downward instead of retaining the common tone in the same voice. The bass should be led upward to avoid concealed fifths and octaves.

Ex. 93.



If a tone in the melody is harmonized with II° and progresses upward to a tone which is harmonized with V the following solutions are possible:

The student needs no further comments to enable him to correctly harmonize melodies in the melodic minor mode. Remember the progressions which should be avoided and avoid them by logical leading and factor doubling.

The seventh and ninth chords in the harmonic minor mode differ in formation from the corresponding chords in the major mode with the exception of the dominant seventh chord which is the same in both modes. Their treatment is similar, however. The following table shows the construction of each.

(Parentheses signify chords which are rarely used. Brackets signify chords which are almost never used.)

Triads		Seventh Chords		Ninth Chords
I	plus	[major 7th]	plus	[major 9th]
II°	plus	minor 7th	plus	minor 9th
III+	plus	(major 7th)	plus	(major 9th)
IV	plus	minor 7th	plus	(major 9th)
V	plus	minor 7th	plus	minor 9th
VI	plus	(major 7th)	plus	[augmented 9th]
VII°	plus	diminished 7th	plus	minor 9th

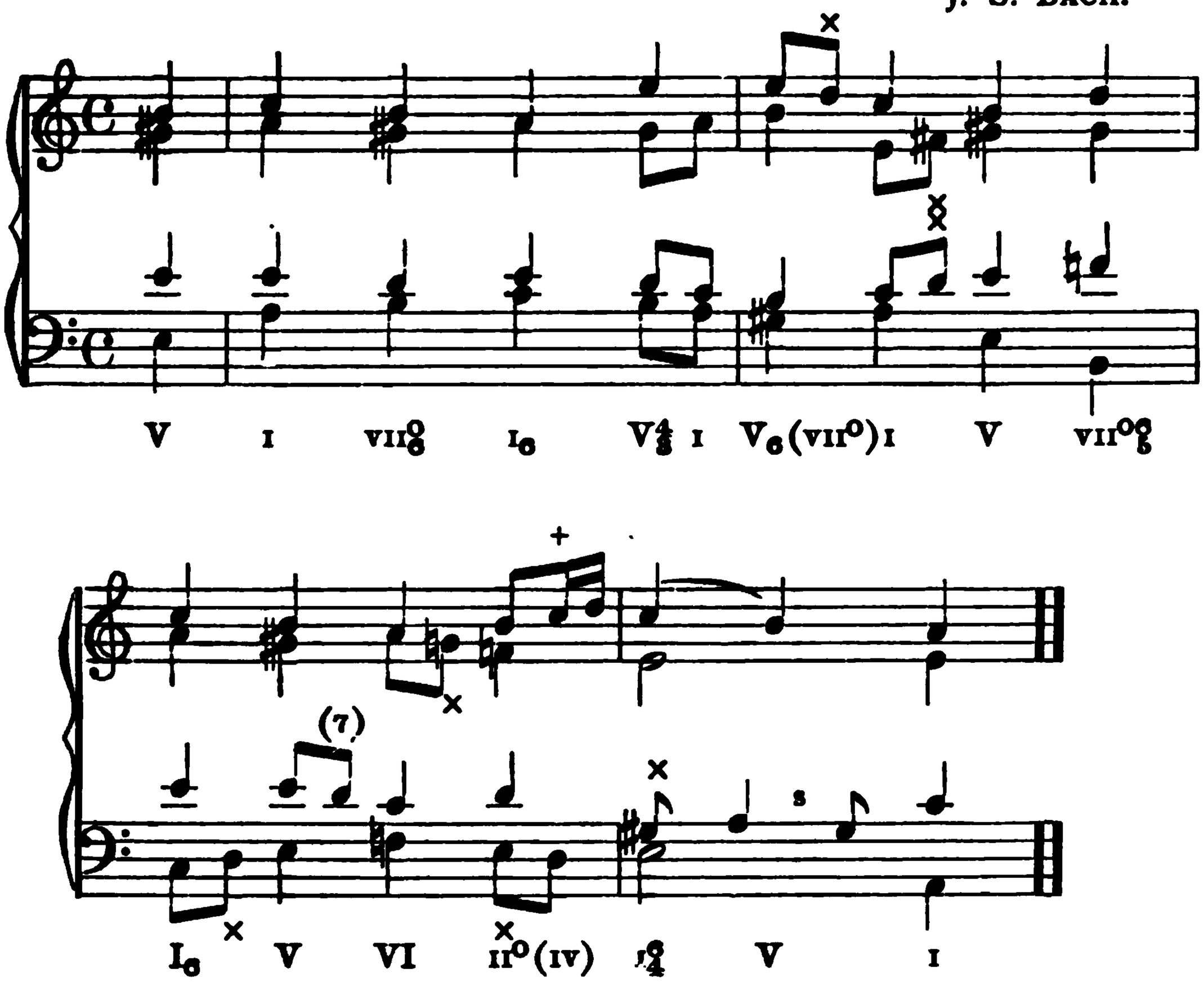
The dominant ninth chord in the minor mode is called the "chord of the minor ninth" and is the most frequently used ninth chord.

The chord of the minor ninth is often used in the major mode (flat sixth scale step) instead of the major dominant ninth.

The following quotations should be studied.

* Consecutive fifths (in contrary motion) appear between tenor and bass. Such consecutives are, of course, to be avoided by the student for the present.

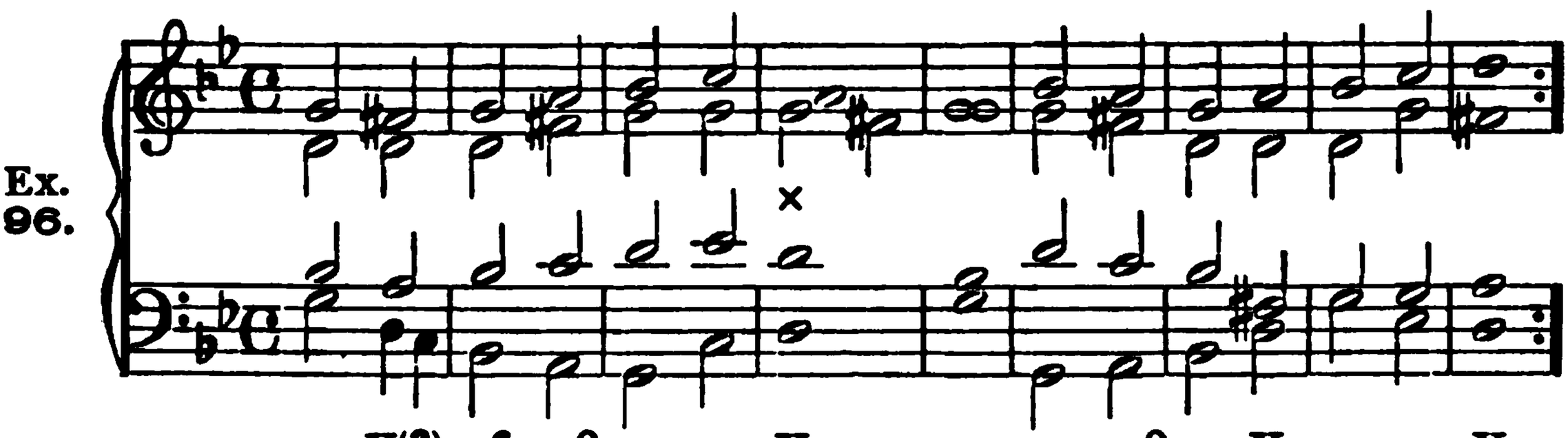
J. S. BACH.

Ex. 95.

V I VII$^{o}_{6}$ I_{6} V^{4}_{3} I V_{6}(VII^{o})I V VII$^{o6}_{5}$

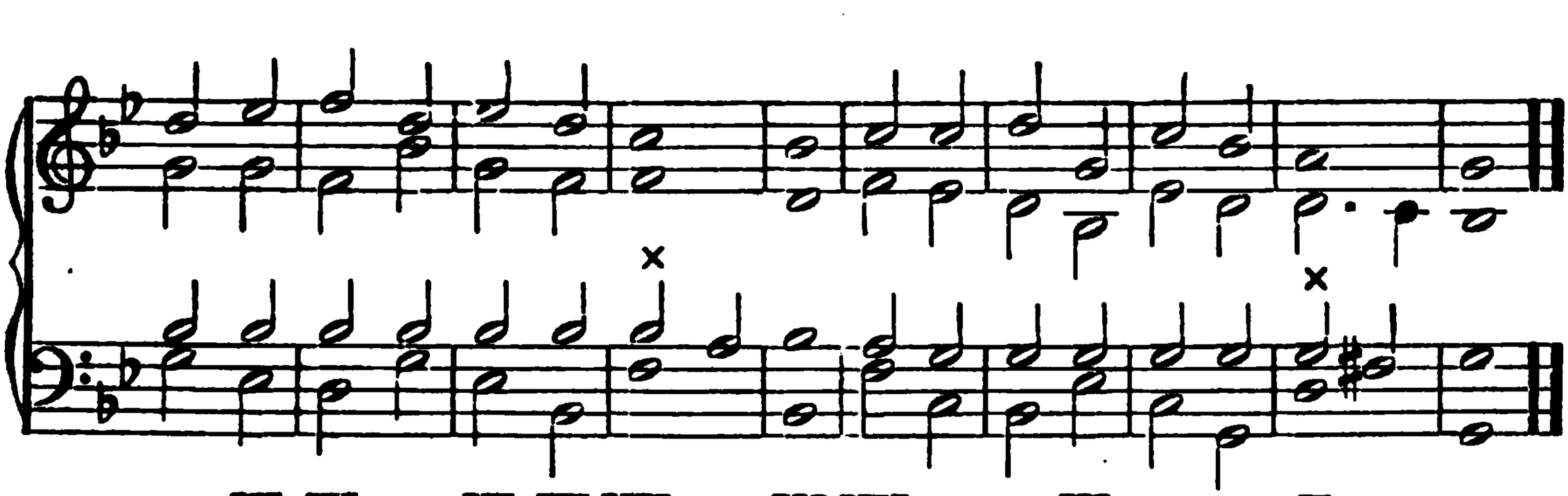
I_{6} V VI II^{o}(IV) I^{6}_{4} V I

J. CRUGER.

Ex. 96.



I $V^{(2)}$ I^{6} VII$^{o}_{6}$ I IV V I I VII$^{o}_{6}$ I_{6} V I IV_{6} V

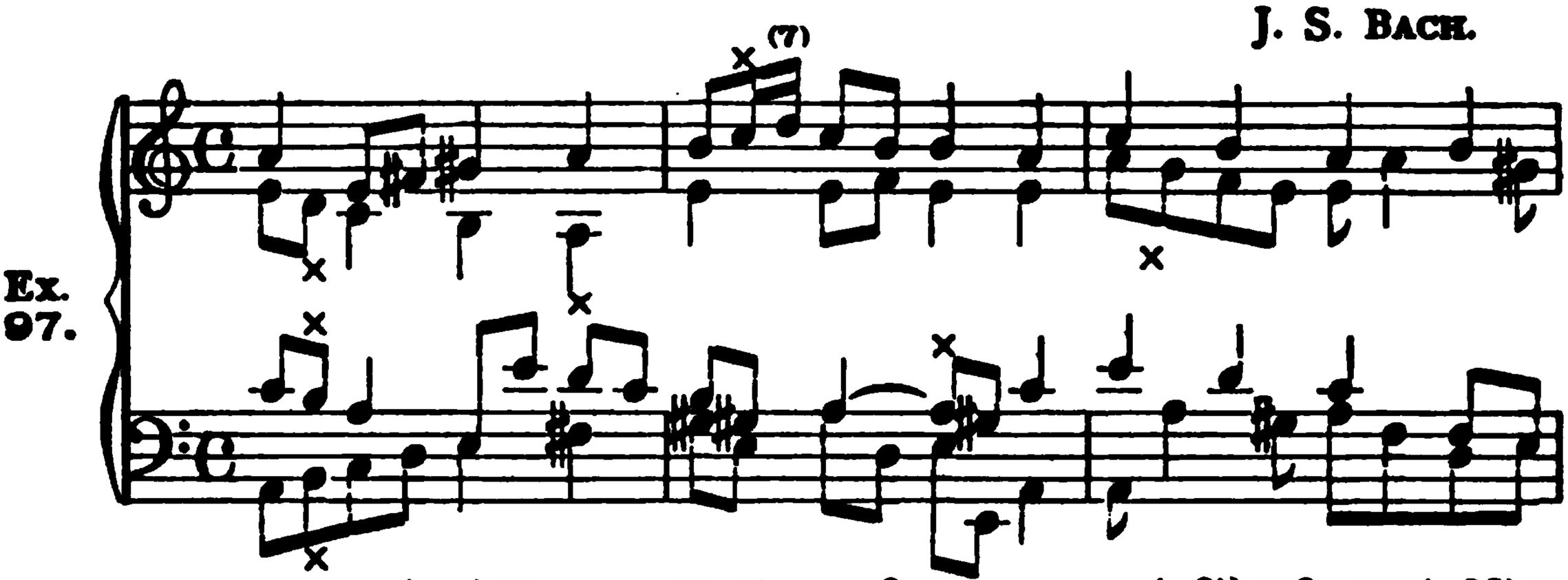


I VI III_{6} I VI III VII III VII IV I_{6} VI IV I V –7 I

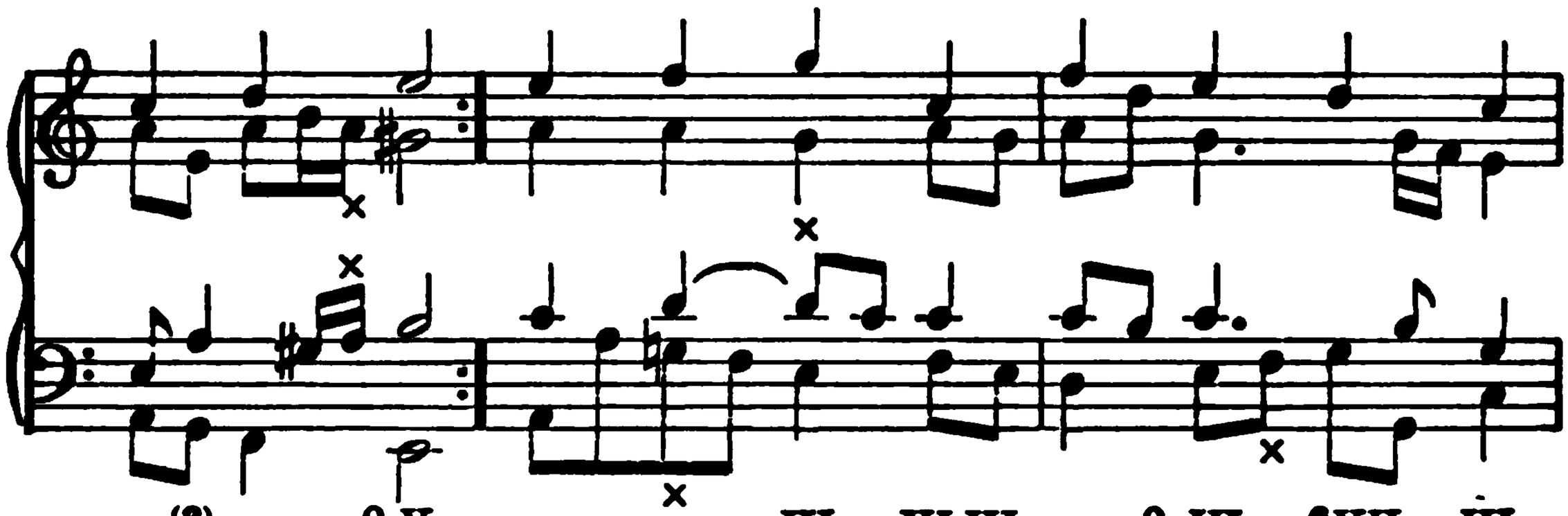
[*N.B.* B♭ I_{6} VI IV I V I V II VI_{6} IV II VI]

J. S. Bach.

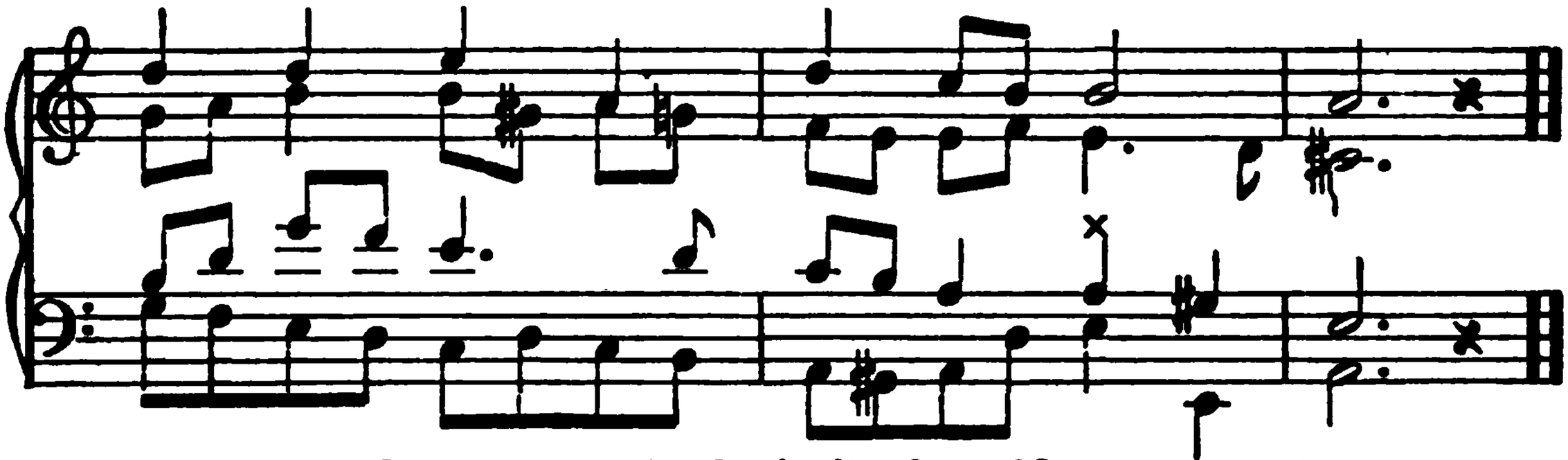
Ex. 97.



I I$_6$(IV$_7$)V VI V$_6$V$_{(7)}$I II$^6_5$V – I I (II$^6_5$) V$^7_5$ I VI(II$^{06}_5$)V



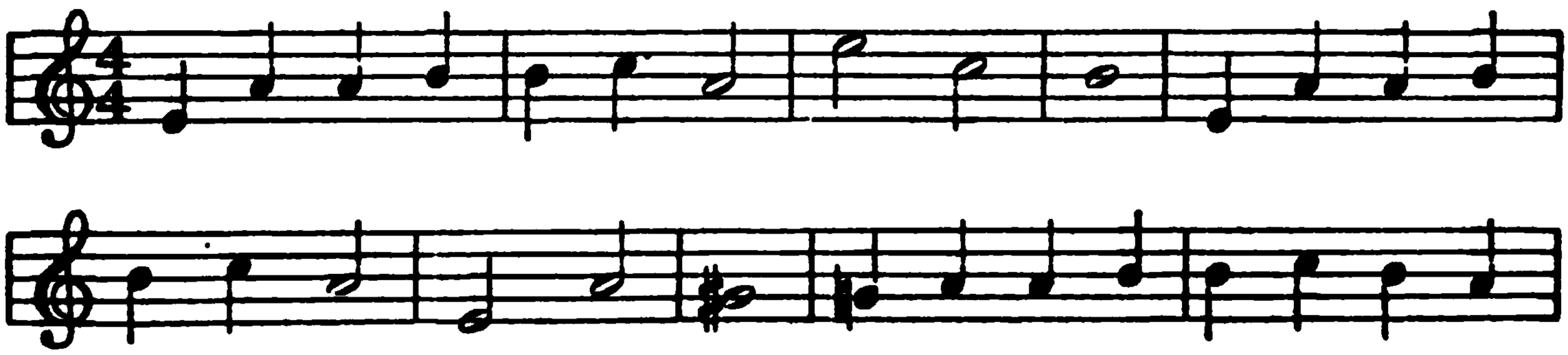
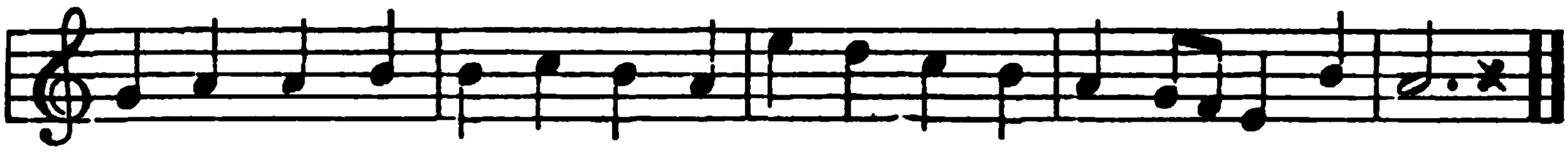
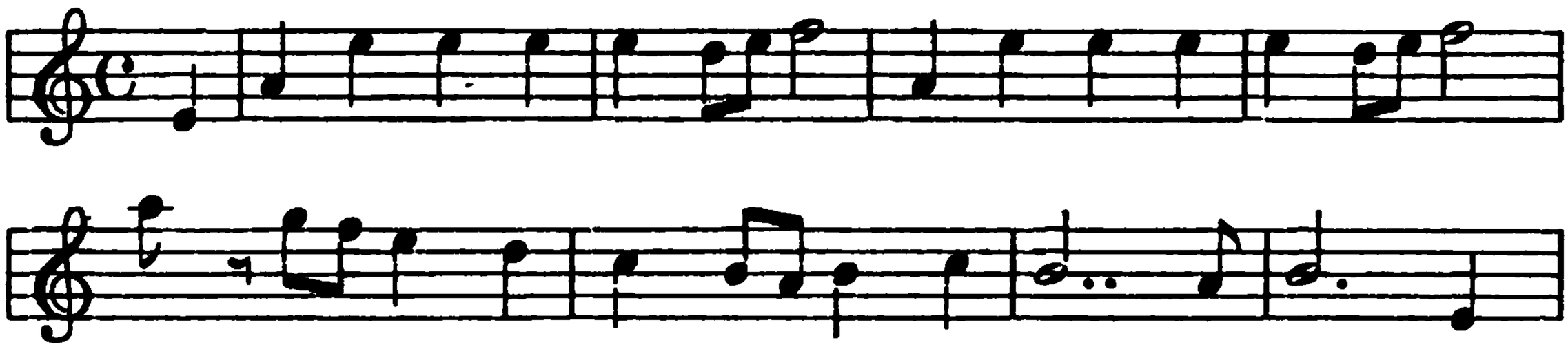
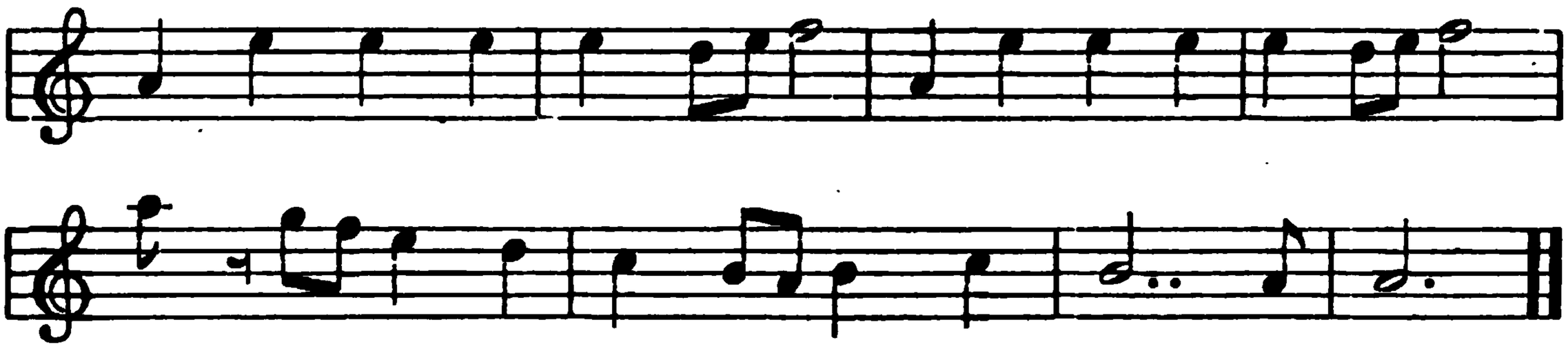
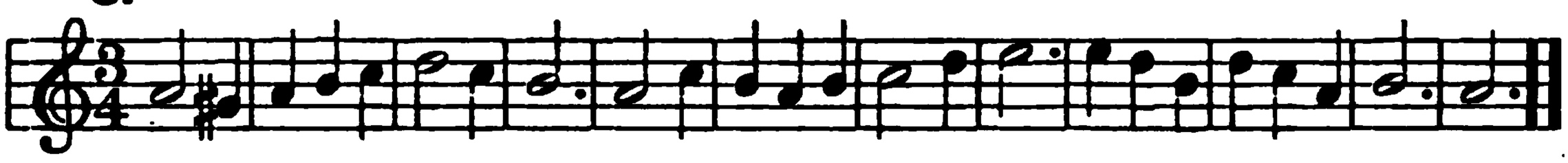
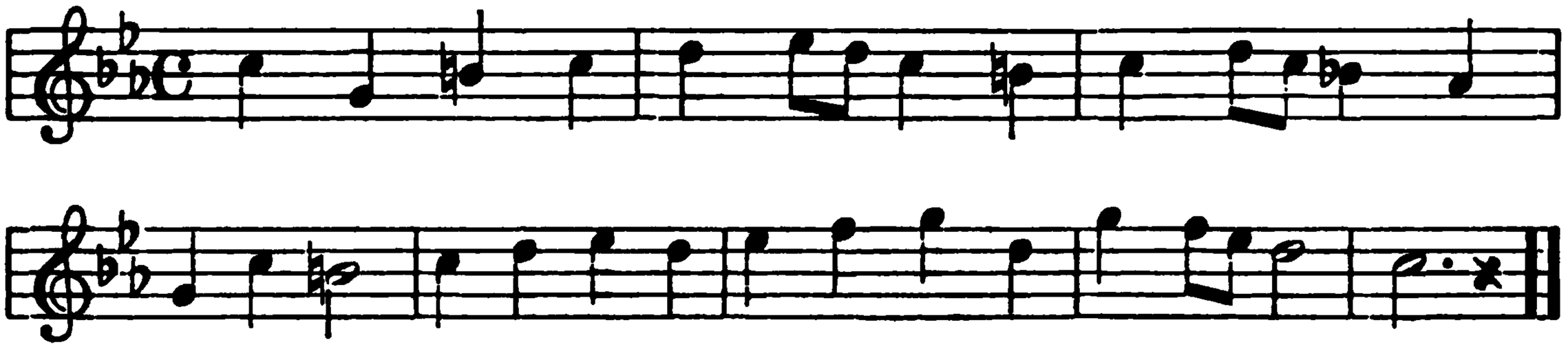
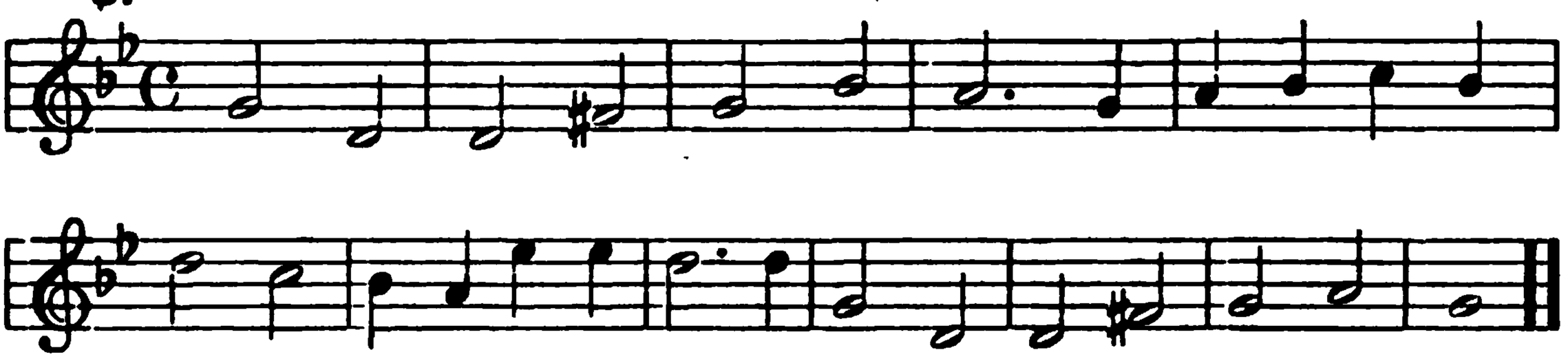
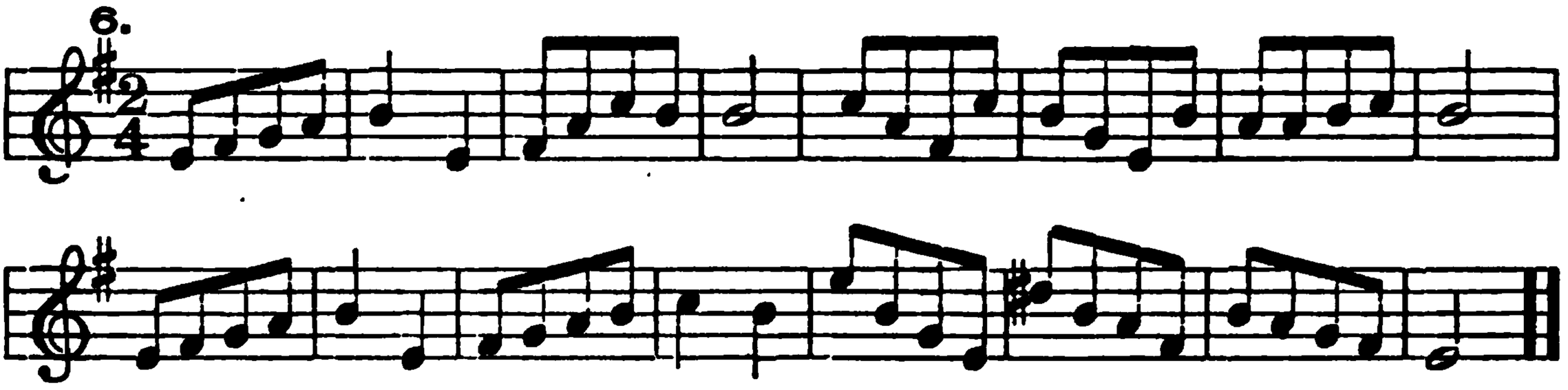
I (2) IV$_6$ VII$^6_5$ V I IV$_6$ III$_6$ VI III$_6$IV$_7$ II$^6_5$ III$_6$ – $^6_4$VII$_{(7)}$ III

[*N.B.* C II$_6$ I$_6$ IV I$_6$ II$_7$ VII$^6_5$ I$_6$ – $^6_4$ V$_{(7)}$ I

VII IV v$_7$ II$^6_5$ III V$_2$ I$_6$(VII$^6_5$) (IV$^6_4$)V$^7_5$ I II$^{06}_5$ V – –$_7$ A I

V II III$_7$ VII$^6_5$ I]

Exercises, Group II.

1.

French Folk Song.

2. GABRIEL-MARIE.

3.

4.

5.

6.

Exercises 17–31 in Appendix C are now available.

CHAPTER XI.

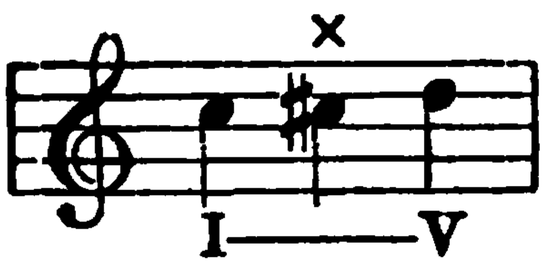
NON-CHORDAL TONES.

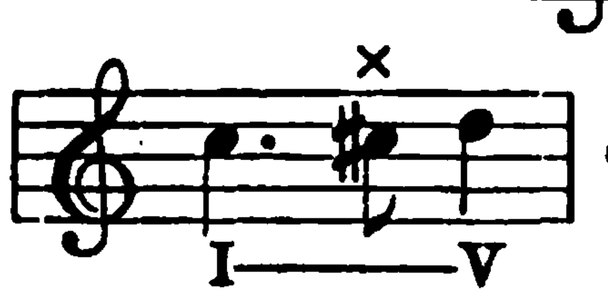
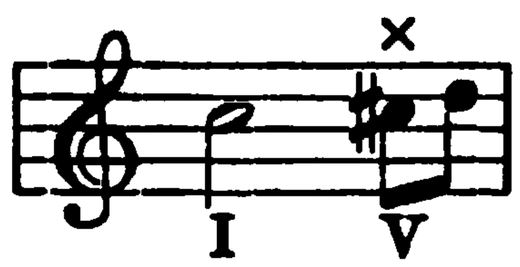
Non-chordal tones are tones which are not factors of the chord in which they sound. They are classified as passing tones (accented and unaccented), appoggiaturas, neighboring tones, unresolved neighboring tones, anticipatory tones, suspensions, retardations, organ point and various compound non-chordal tones.

A PASSING TONE is a non-chordal tone which is approached and quitted stepwise in the same direction. An accented passing tone is one which is attacked with the chord, thereby delaying the factor of the chord to which it progresses. It is more effective in a downward scale figure than in an upward scale figure. An unaccented passing tone is one which is sounded on the latter portion of the chord.

Between two chordal tones separated by the interval of a major second may be inserted a chromatic passing tone, hence:

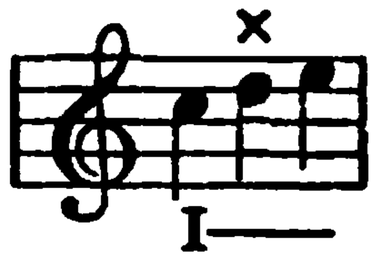
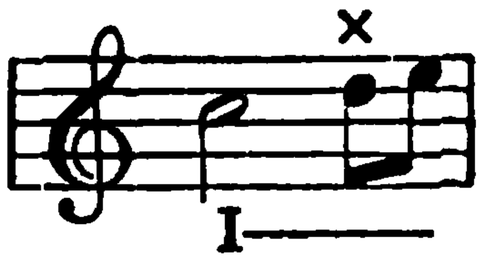
may be embellished thus:



or

or (accented)


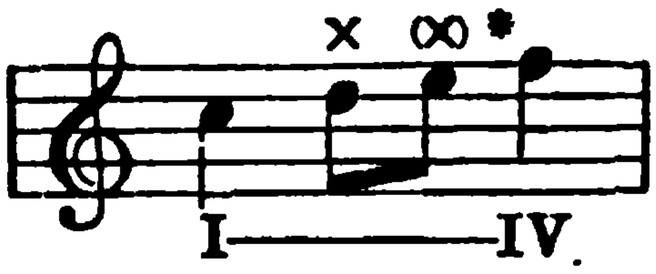
.

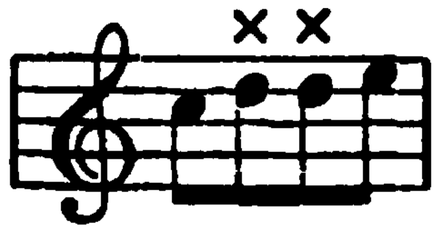
Between two chordal tones separated by the interval of a third may be inserted a diatonic passing tone, hence:

may be embellished thus:

or (accented) 

etc.

Between two chordal tones separated by the interval of a fourth may be inserted two diatonic passing tones, hence:

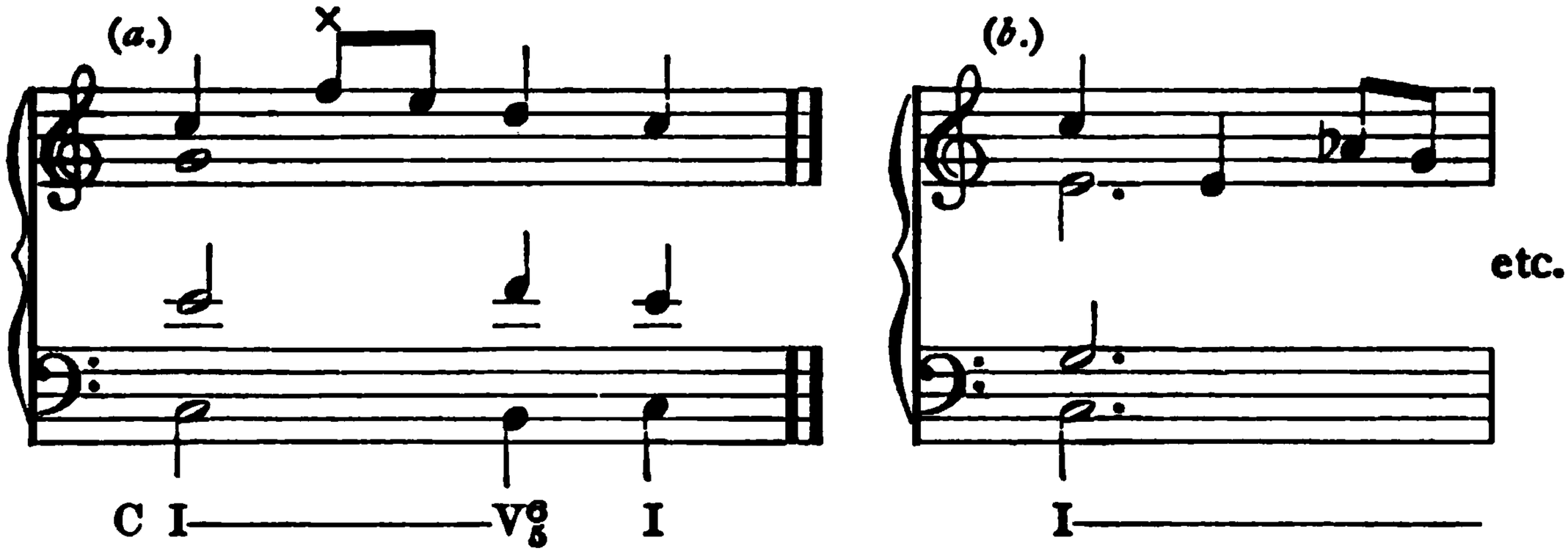
may be embellished thus:

etc.

The accented passing tone is more effective than the unaccented passing tone but it is not as common. The chromatic passing tone is more effective in an upward figure than in a downward figure. Chromatic passing tones do not necessarily affect the tonality. Passing tones are sometimes repeated:

etc.

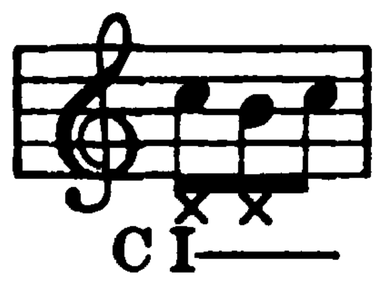
* Notice that the *c* is a factor of the tonic chord and is therefore, strictly speaking, not a passing tone.

THE APPOGGIATURA is an accented non-chordal tone occurring with the chord and resolving downward diatonically or chromatically to the chord factor which it delays.

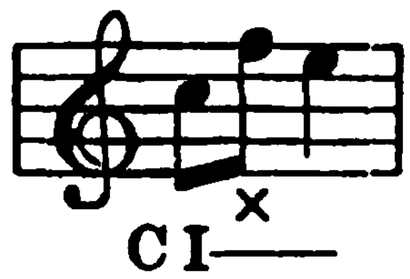
Ex. 98.



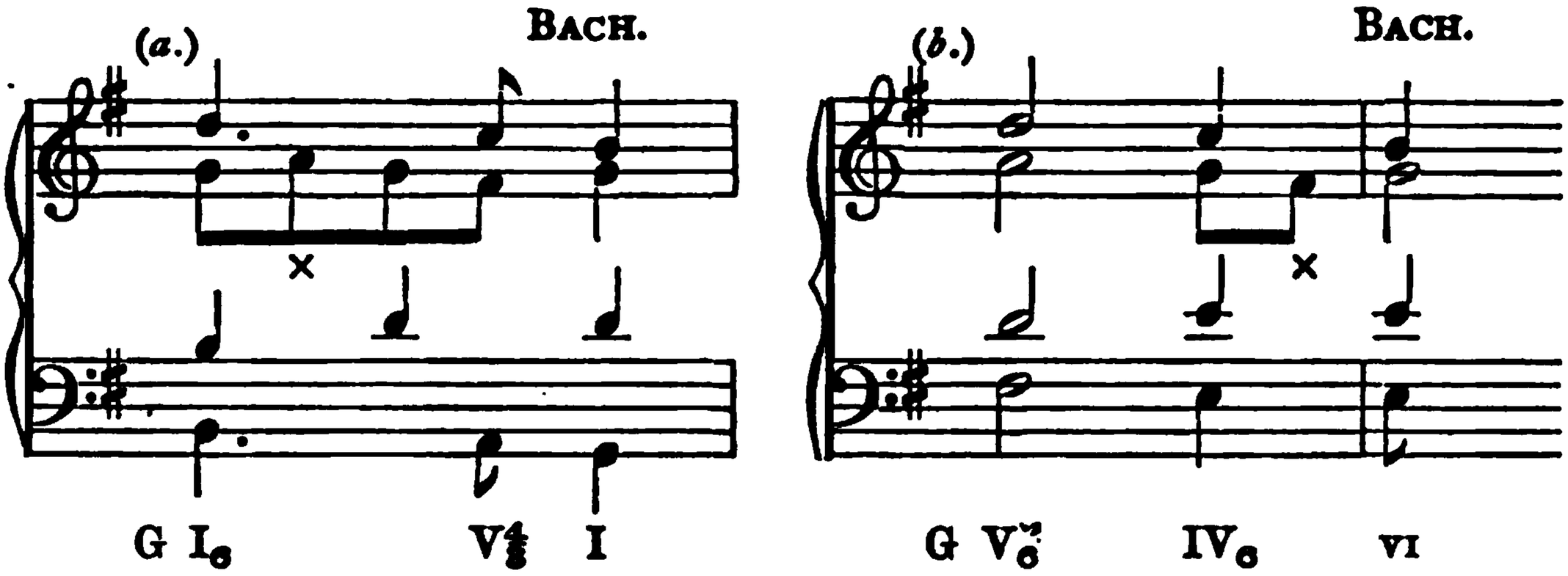
The difference between the appoggiatura and the accented passing tone is that the former is approached by leap and is consequently unprepared while the latter enters prepared along the scale line. The appoggiatura occasionally resolves upward (usually a minor second).

Frequently the upper and lower adjacent tones precede a chordal tone (unprepared) and these non-chordal tones are called by most theorists the *double appoggiatura.*  or etc.

The double appoggiatura frequently occurs as an *Anschlag.*

A non-chordal tone similar to the following: is by most theorists called an "unaccented appoggiatura." Others prefer to call it a "passing tone approached by skip." The former name is free from the ambiguity which characterizes the latter name.

A NEIGHBORING TONE, also called "auxilliary tone," is an unaccented non-chordal tone which embellishes a repeated chordal tone. This non-chordal tone may be the upper or lower adjacent tone to the chordal tone and may be at the distance of either a major or a minor second, rarely an augmented second. The upper neighboring tone is usually diatonic but the lower neighboring tone is more frequently a minor second below the chordal tone. A chromatic neighboring tone does not necessarily affect the tonality.

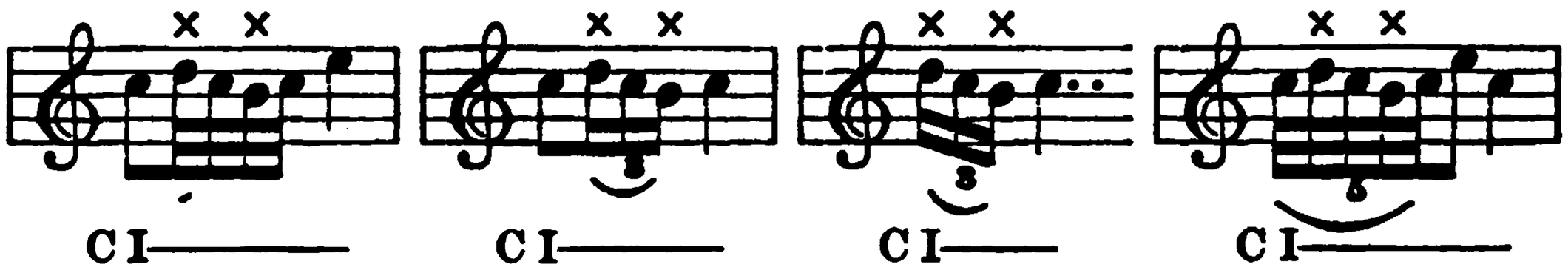
Ex. 99.



Neighboring Tones are sometimes repeated.

The Gruppetto **or** ***turn*** **is a group of chordal tones and non-chordal neighboring tones,**

thus:

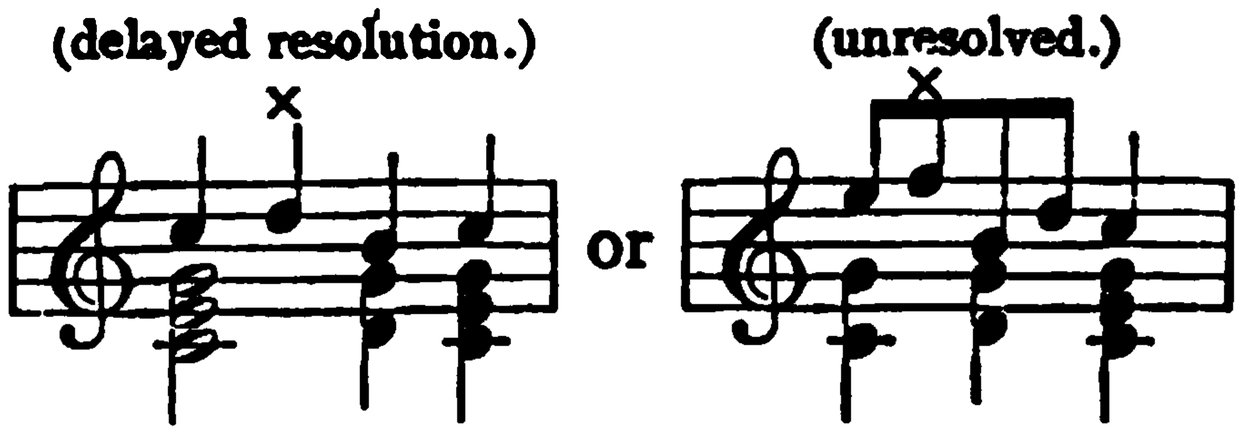


etc.

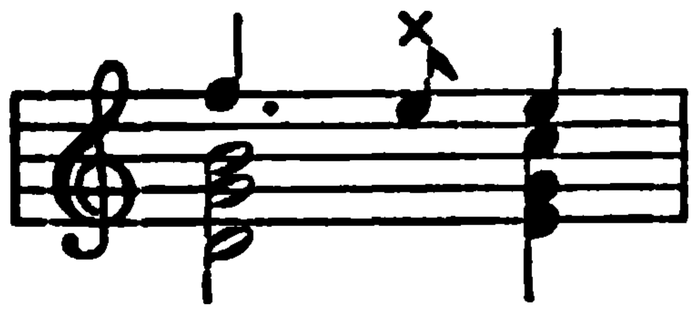
The ***mordent***, **the** ***prall-trill***, **and the** ***trill*** **are also ornamental applications of the neighboring tones.**

AN UNRESOLVED NEIGHBORING TONE **is an unaccented non-chordal tone approached diatonically and quitted by skip, usually of a third,**

thus:

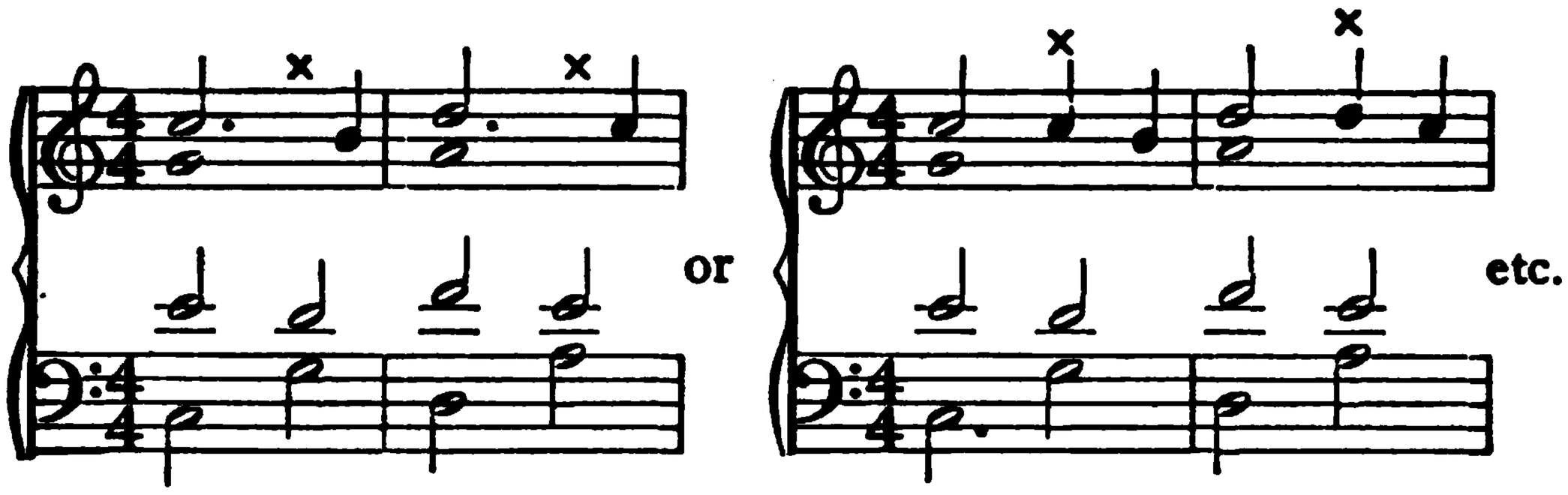


etc. Some theorists call such a non-chordal tone a "changing tone." The term is misleading because of the custom among other theorists of defining a changing tone as an accented passing tone.

AN ANTICIPATORY TONE **is an unaccented tone foreign to the chord with which it sounds but a factor in the chord which follows. It may be approached diatonically or by skip.**

etc.

A SUSPENSION **is a chord factor sustained from one chord into the following chord of which it is not a part, and resolved diatonically downward to a factor of the second chord during the sustenance of the second chord.**

Ex. 100.

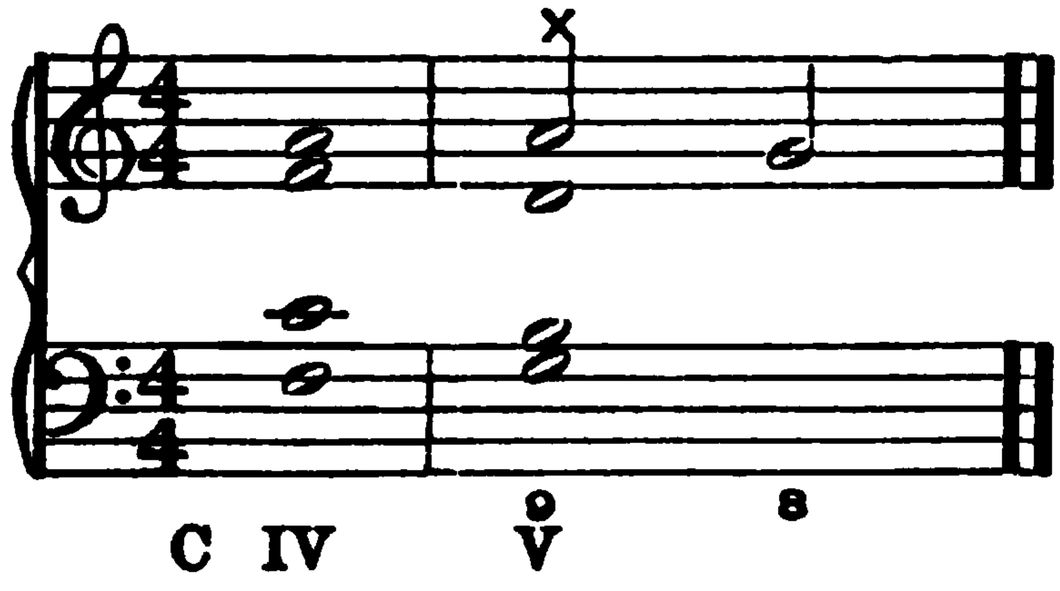


Less frequently, the suspension is resolved upward diatonically. The suspension resolving upward is called, by some theorists, a RETARDATION.

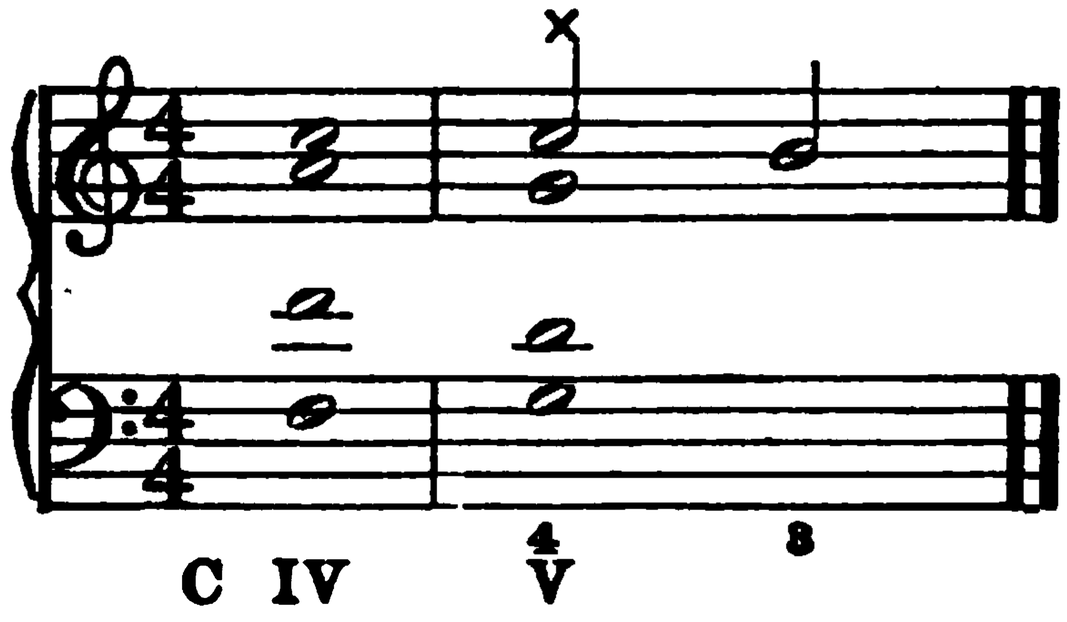
"Grammatical errors" are not alleviated by the suspension except in the progression of the German Sixth Chord to dominant harmony which is explained in Chapter 12.

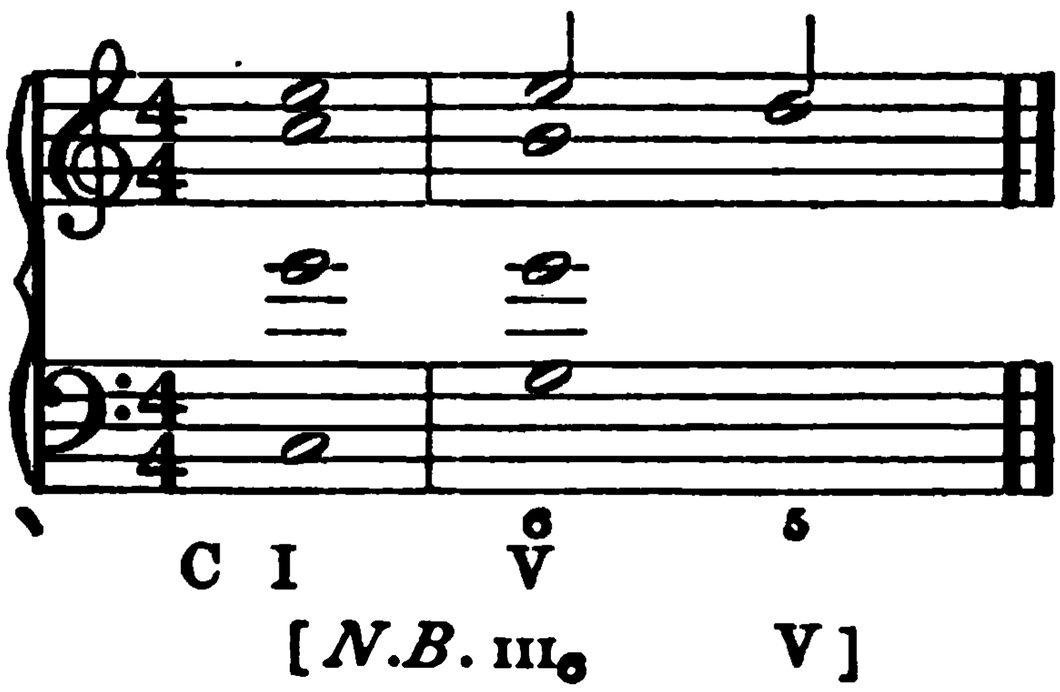
The suspension is figured over the bass with Arabic figures, the first figure showing the interval which the suspension forms with the bass and the second figure showing the chord factor which is delayed by the suspension. The tone of suspension appears first as a chordal tone (called *preparation*) and is sustained to the following chord (called *percussion*) and progresses diatonically downward (called *resolution*) to the consonant tone of the second chord which was delayed by the suspension. Preparation, percussion, and resolution should be in the same voice part. Percussion usually occurs on an accent. The delayed tone should not be present in any other voice part during percussion at the distance of the interval of a second. Various suspensions are shown and figured in the following examples:

Suspension 9–8: Ex. 101.

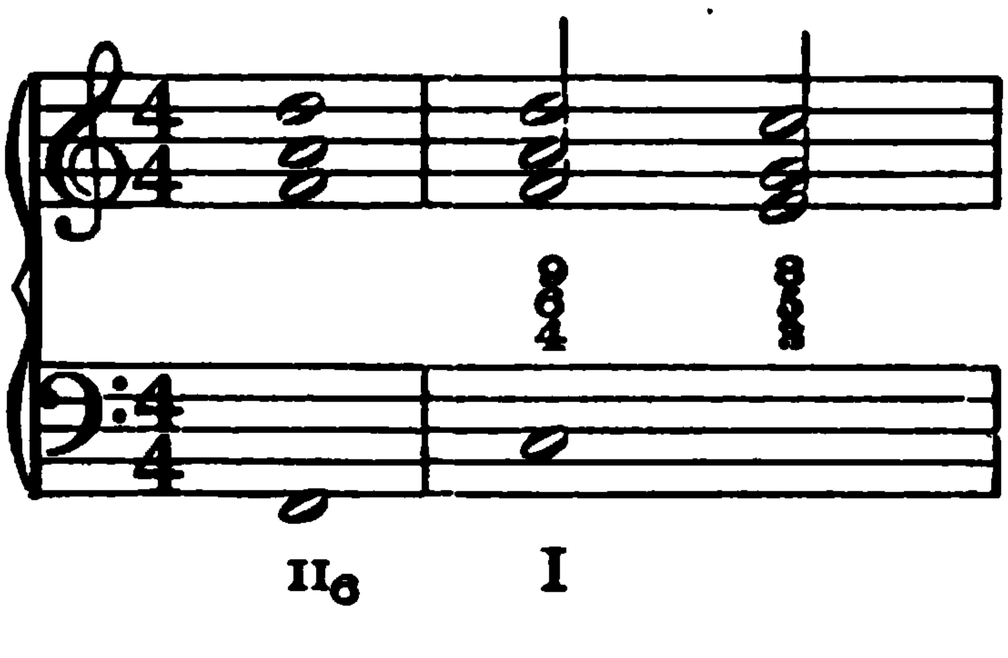


Suspension 4–3: Ex. 102.

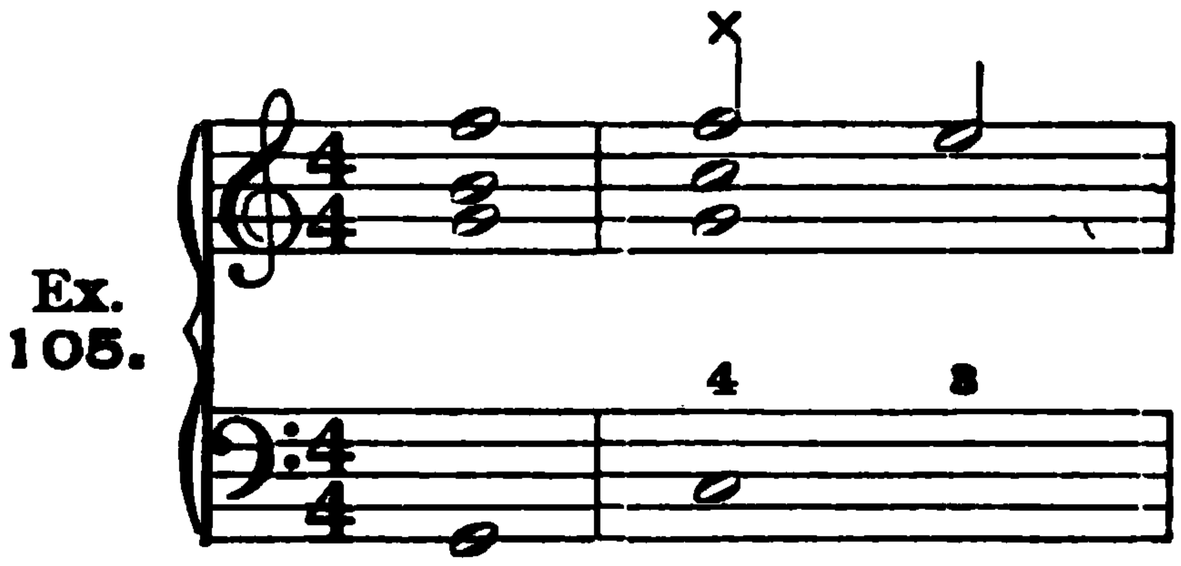


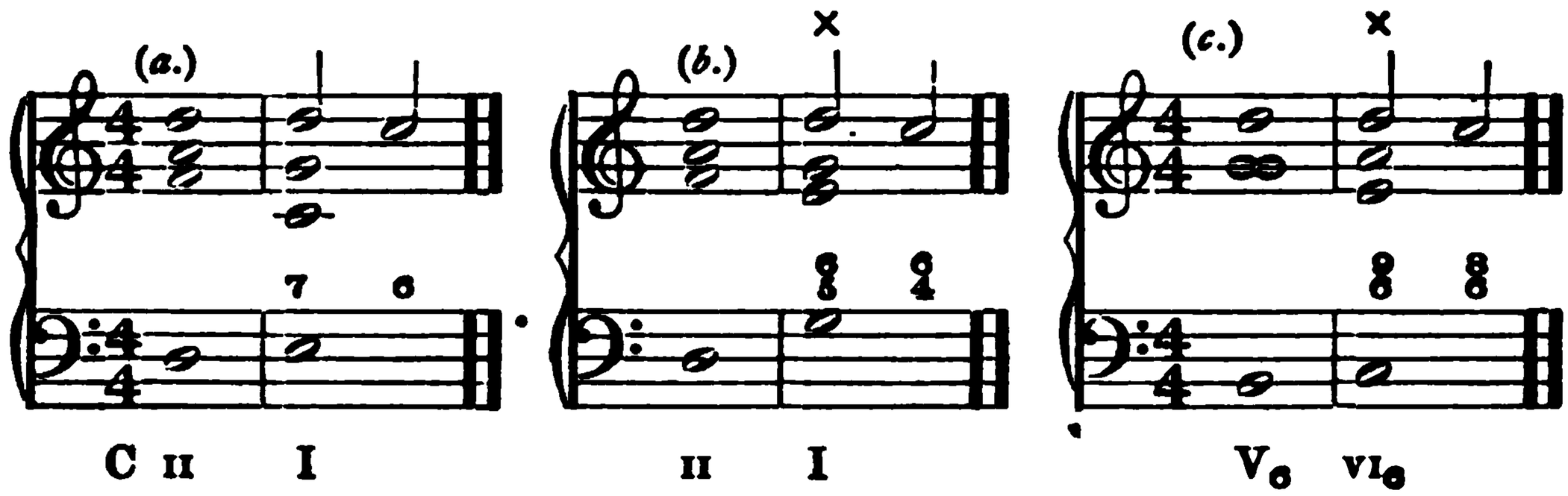
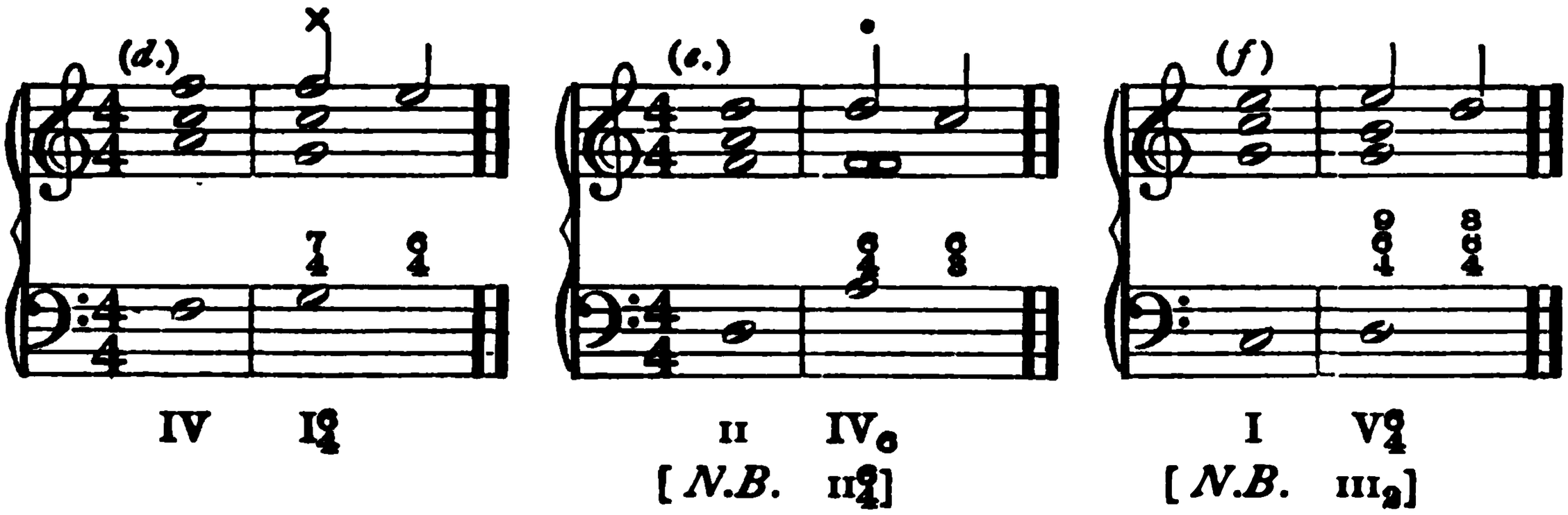
Suspension 6–5: Ex. 103.

The suspension 6–5 does not form a dissonant at percussion and is therefore not as effective as suspensions 9–8 and 4–3.

A suspension may occur in any voice part and suspensions may occur in two or three voices simultaneously:

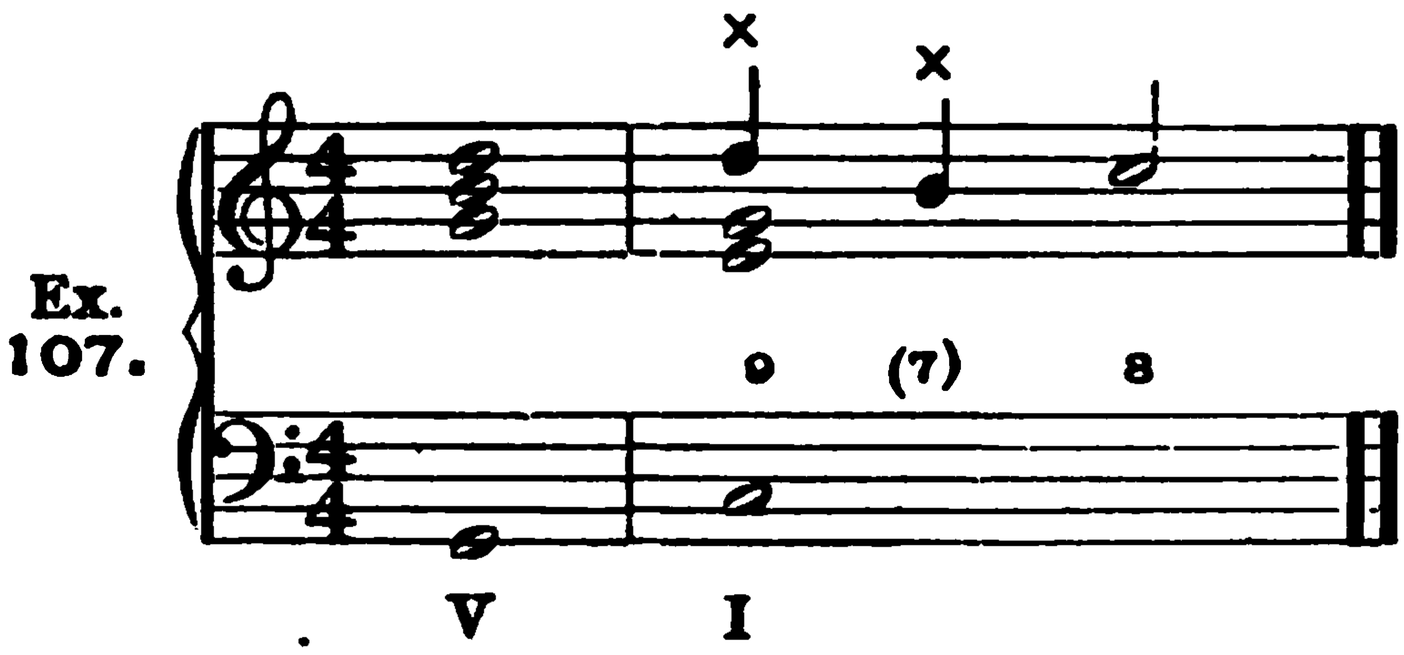
Ex. 104.

The above example may be analyzed as an anticipation in the bass or as a suspension in the three upper voices.

Occasionally a dissonant factor is retained:

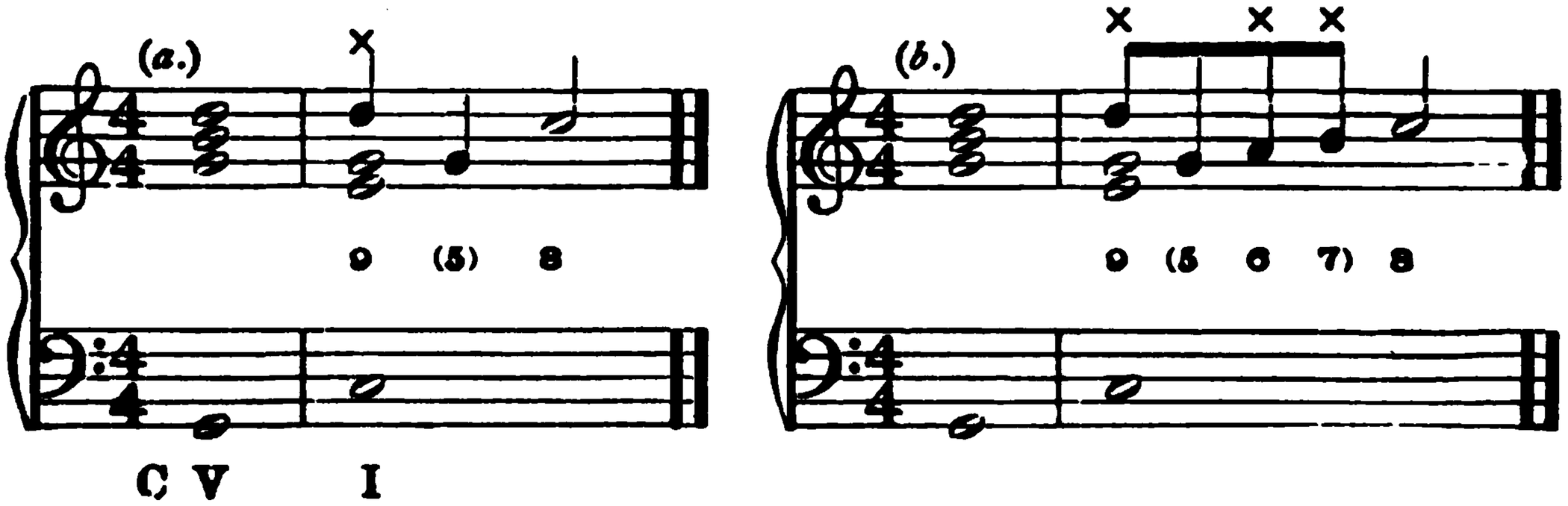
Ex. 105.

The figuring of suspensions is altered when the second chord of the suspension is inverted. The first inversion of the suspension 9–8 becomes 7–6 and the second inversion becomes $\begin{matrix}6\text{–}6\\5\text{–}4\end{matrix}$. The suspension 4–3 with the second chord in its first inversion is figured $\begin{matrix}9\text{–}8\\6\text{–}6\end{matrix}$; second inversion $\begin{matrix}7\text{–}6\\4\text{–}4\end{matrix}$. The suspension 6–5 with the second chord in its first inversion is figured $\begin{matrix}6\text{–}6\\4\text{–}3\end{matrix}$; second inversion, $\begin{matrix}9\text{–}8\\6\text{–}6\\4\text{–}4\end{matrix}$.

Ex. 106.

Three irregular progressions of the suspension are common:

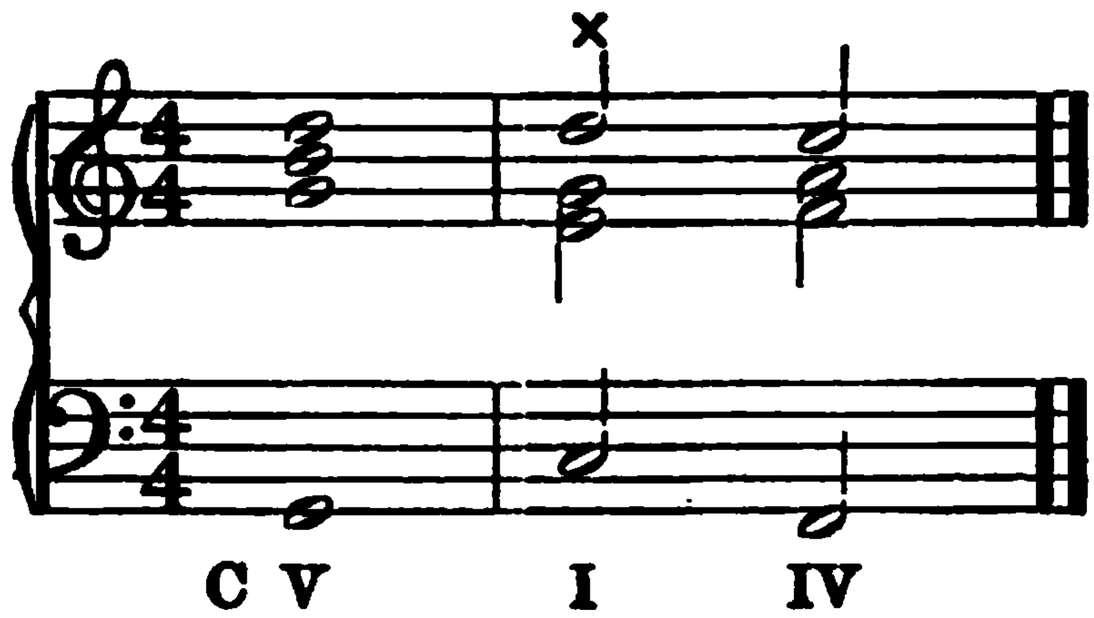
1st. Interpolating the lower neighbor.

Ex. 107.

2nd. To another tone of the chord. The same with passing tones.

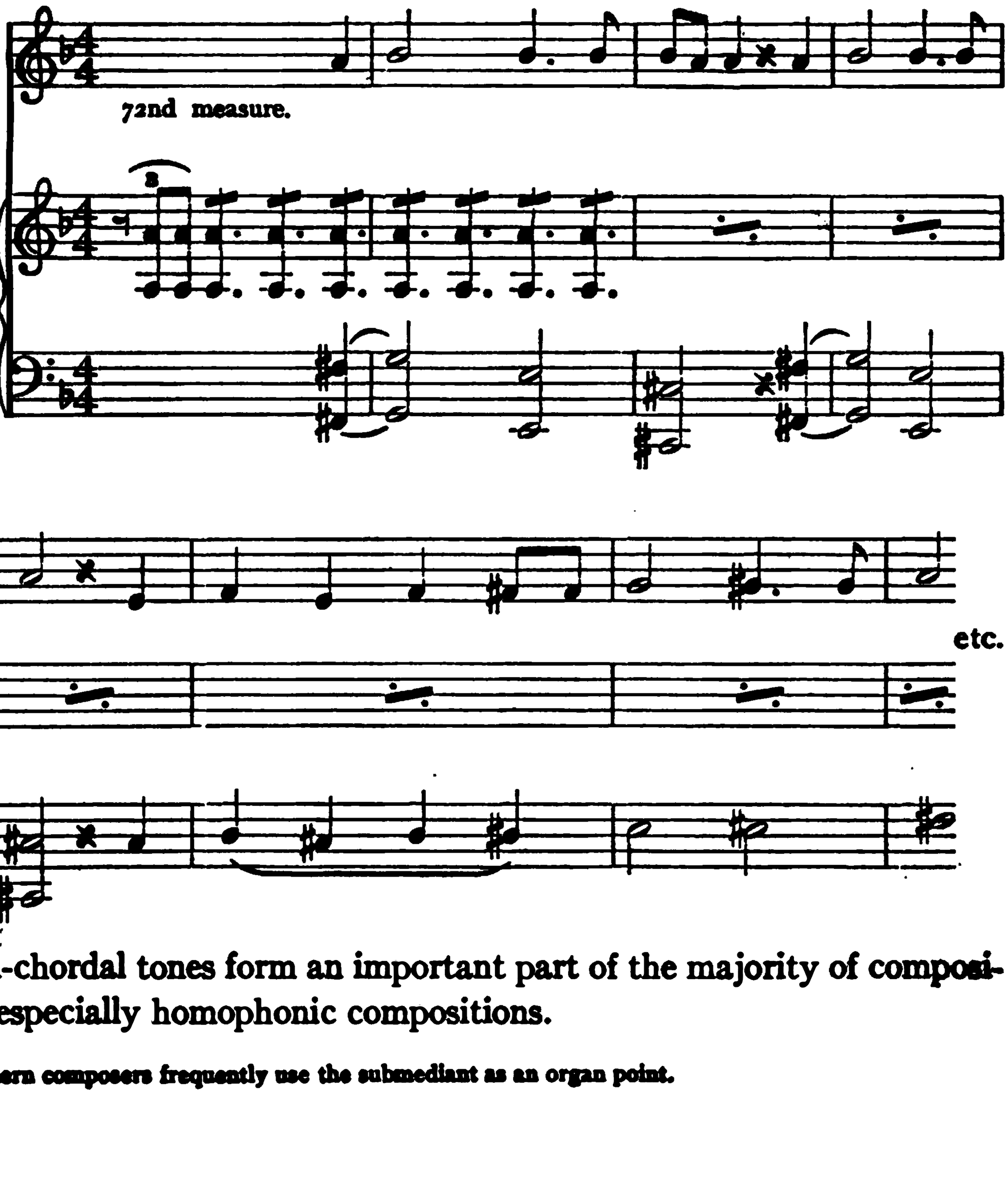
Ex. 108.



3rd. Changing the chord at "Resolution."

Ex. 109.

THE ORGAN POINT is a retained tone (usually in the bass) during the retention of which, chords related and unrelated to the tone occur; the first and last chords must be related. The organ point is usually the tonic or dominant and sometimes both.* The tone may be reiterated or sustained. Schubert, in his *Erl King*, has produced a dramatic effect by using the dominant organ point in upper voices:

Ex. 110.



Non-chordal tones form an important part of the majority of compositions, especially homophonic compositions.

* Modern composers frequently use the submediant as an organ point.

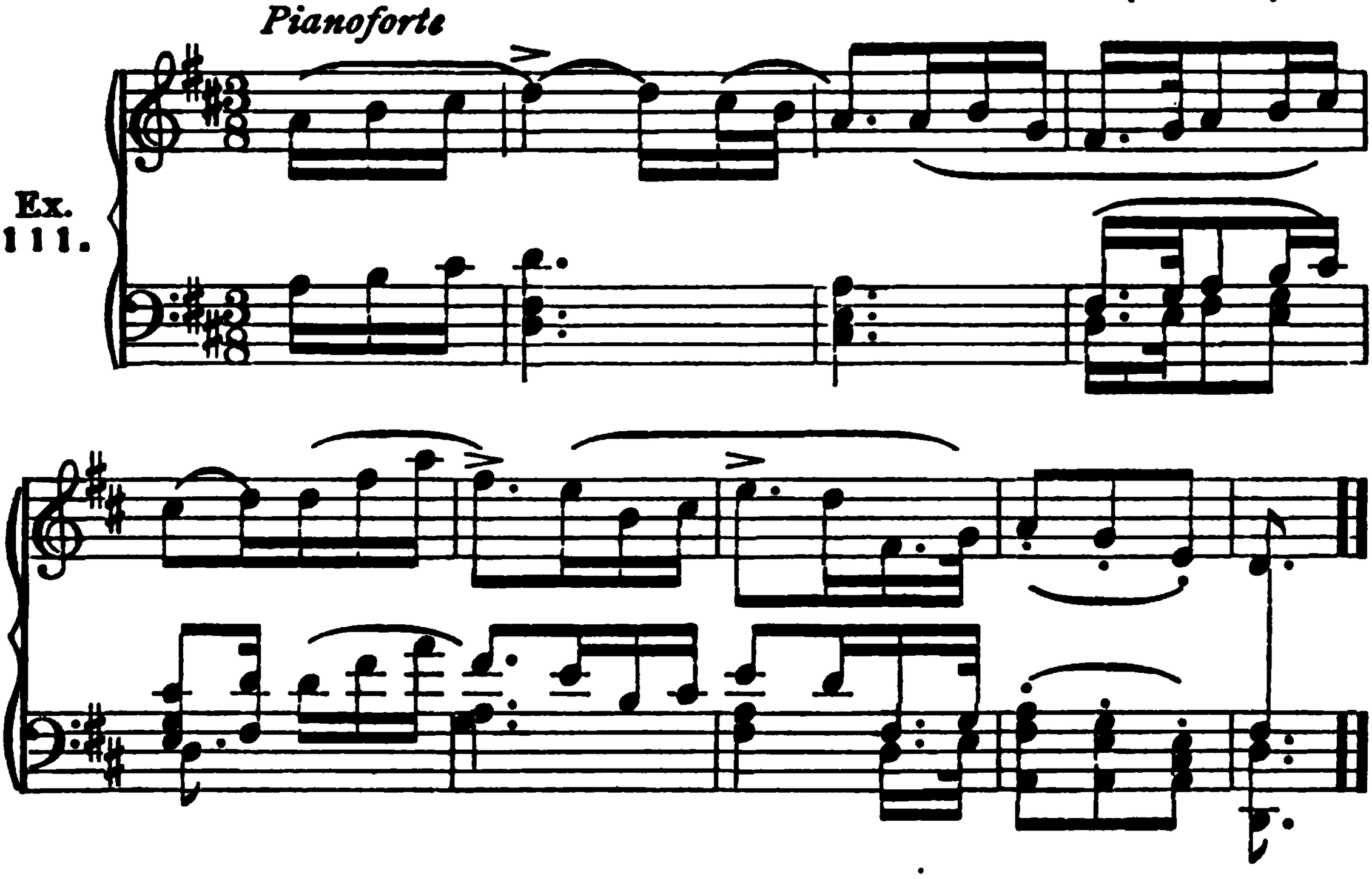
Many subtleties enter into a logical harmonization of a melody containing non-chordal tones and rules are of little assistance. Musical experience, a well-trained ear, and a great amount of analysis are the stepping-stones to success.

The following quotations show the application of the non-chordal tones. For further analysis Mendelssohn's *Songs Without Words* are recommended. The work in analysis becomes more beneficial, more successful and less restricted after studying modulation.

Ex. 111.

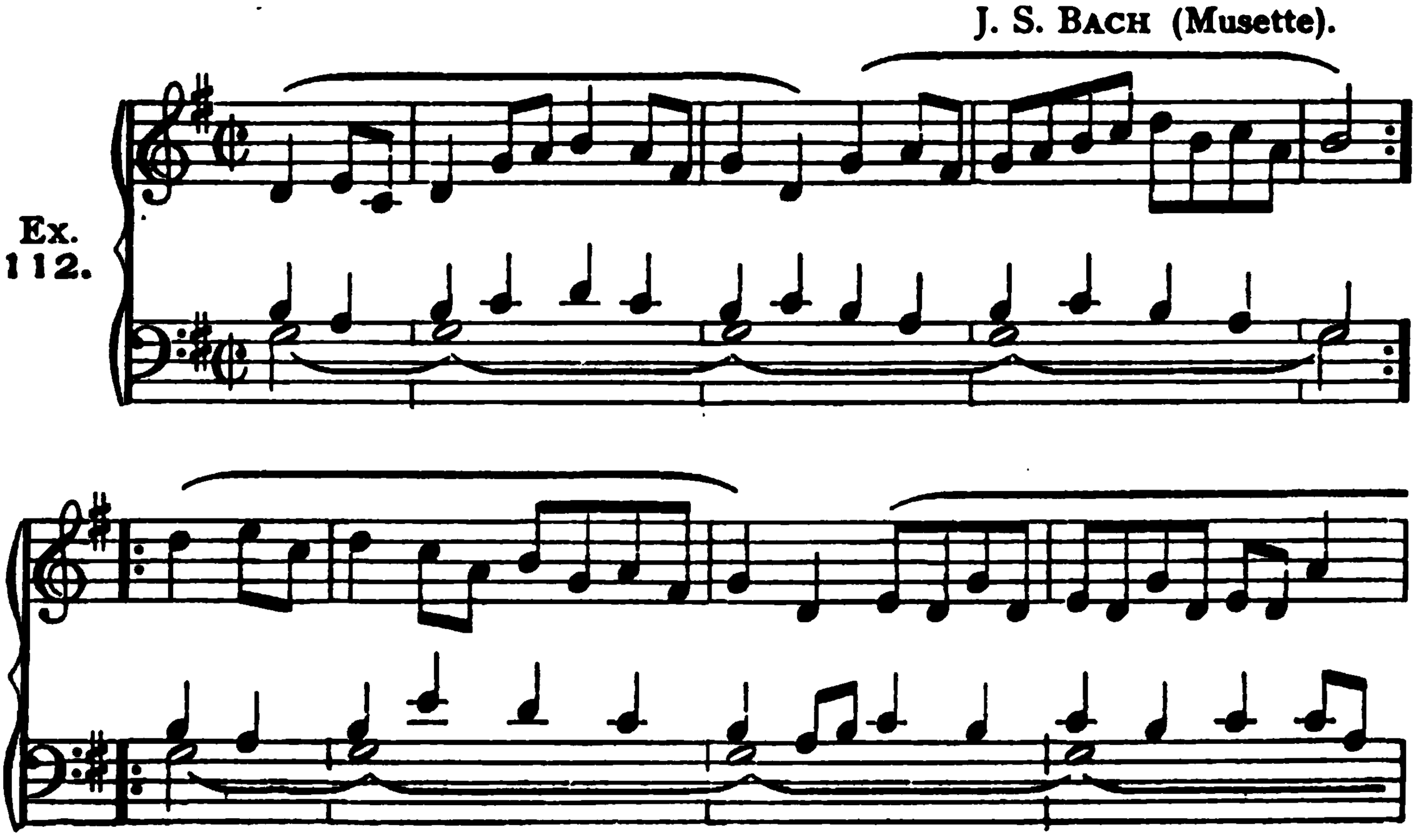
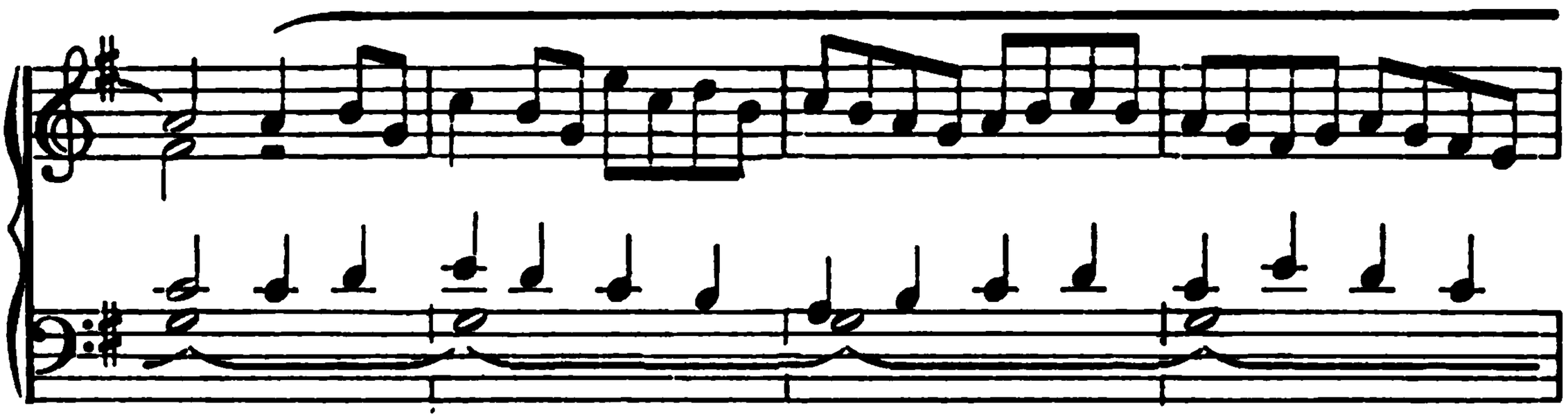
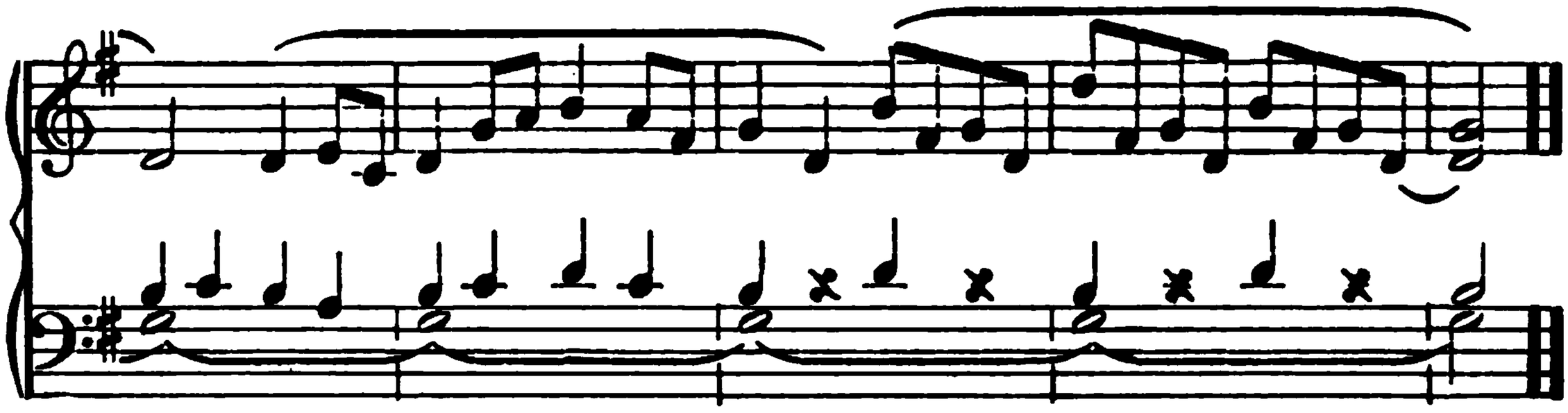
SCHUBERT (Andante).

Pianoforte



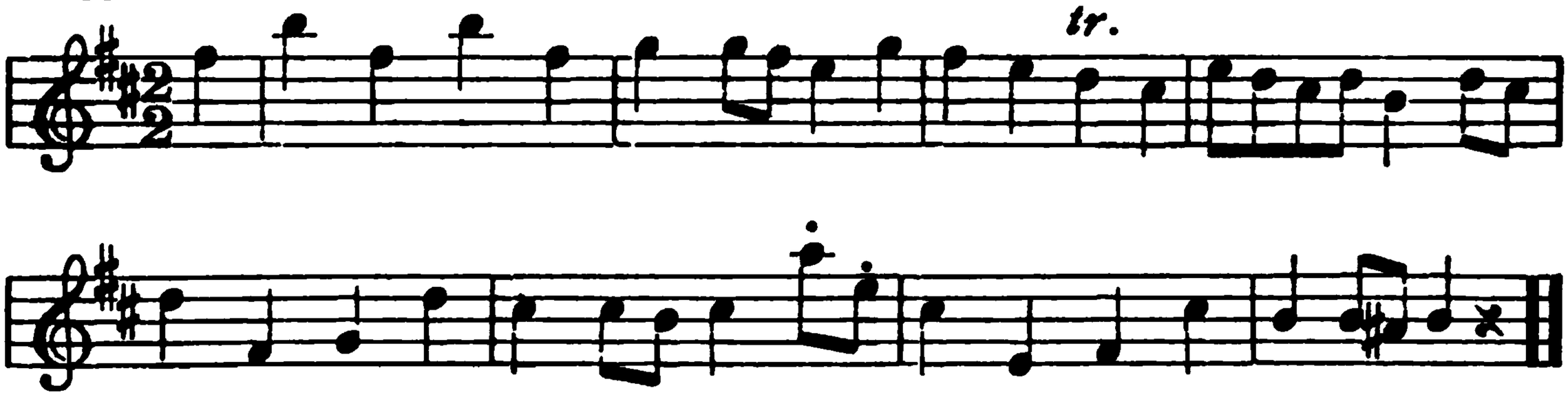
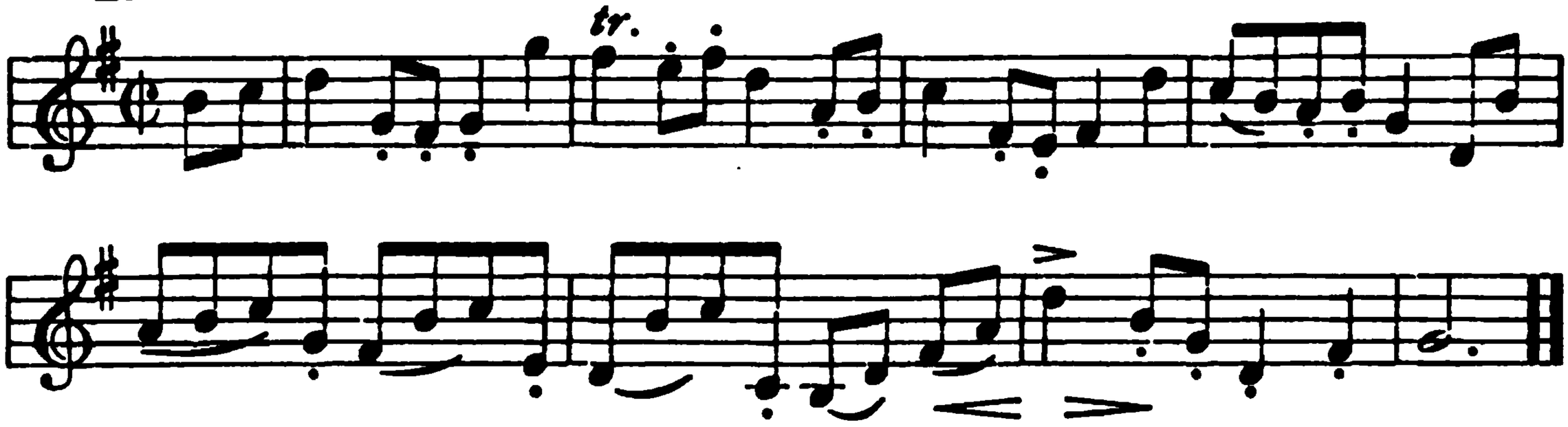
Ex. 112.

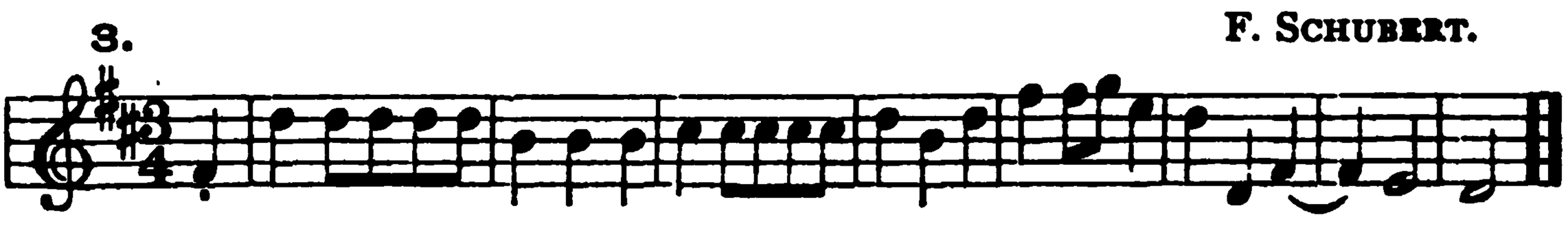
J. S. BACH (Musette).

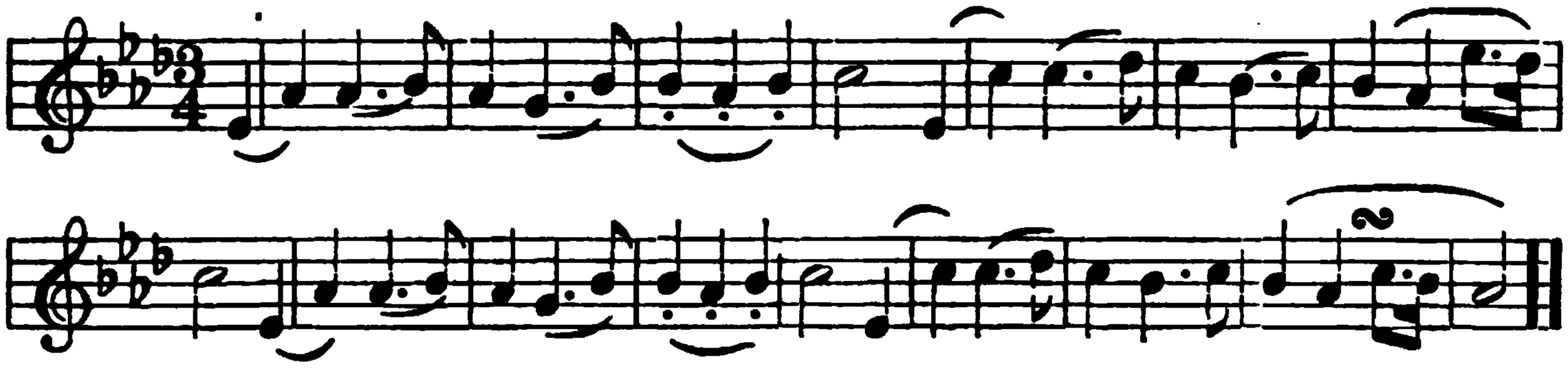


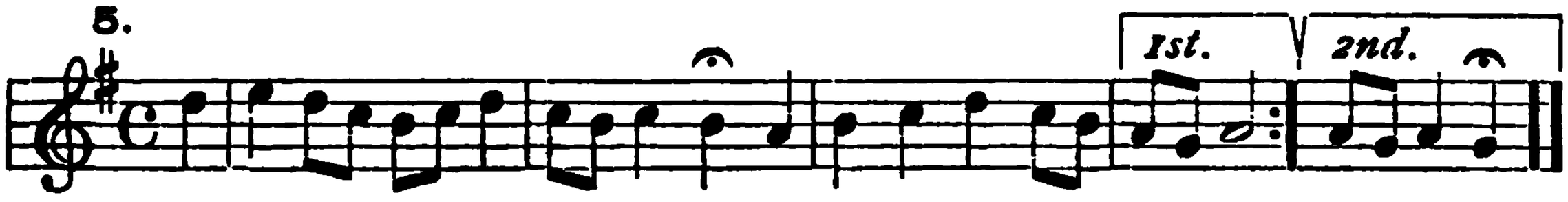
Review Examples 51, 52, 60, 71, 83, 86, 95, 96 and 97.

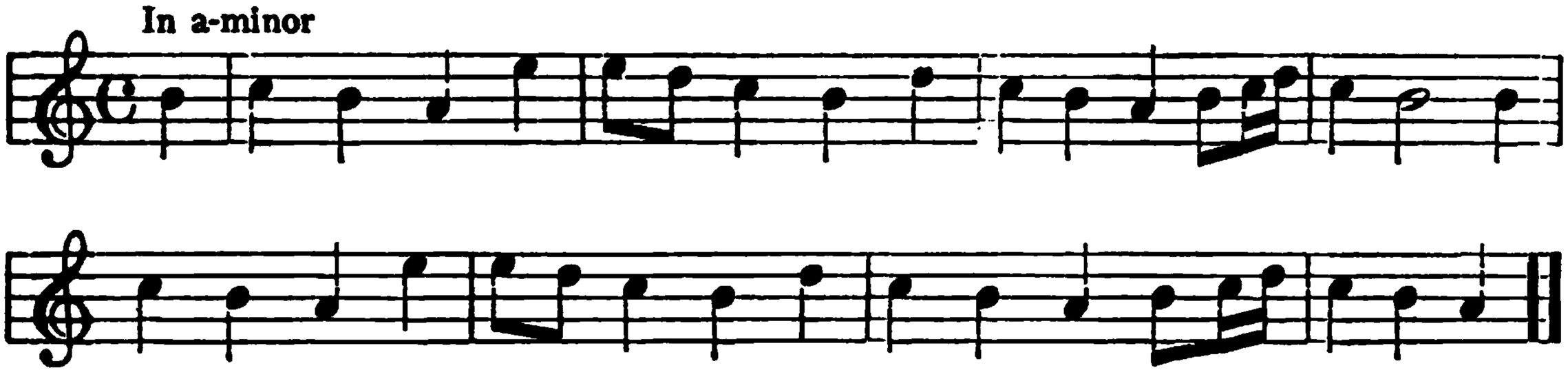
Exercises, Group 12.

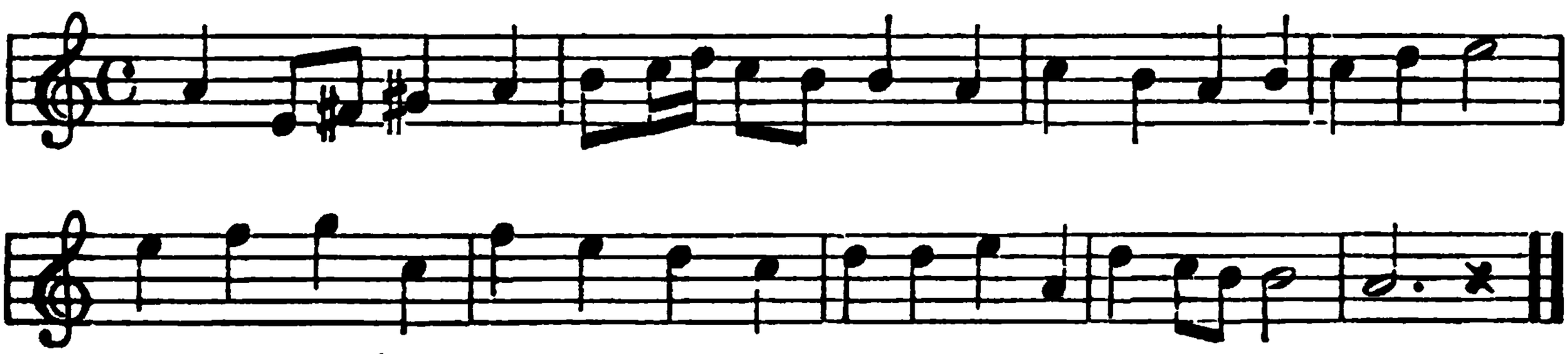
1. In b-minor. J. S. Bach.

2. J. S. Bach.

3. F. Schubert.



4. F. SCHUBERT.

J. S. BACH.

5.

J. S. BACH.

6.
In a-minor

J. S. BACH.

7.

CHAPTER XII.

ALTERED CHORDS.

Tones are chromatically altered for one or more of four reasons: (1st) to modulate, (2nd) to add esthetic interest, (3rd) to produce smoother voice leading and (4th) to increase or alter the tendency of scale tones.

Altered factors should seldom be doubled.

The fifth of triads is frequently altered. The root of the subdominant triad is more frequently raised than other roots. The sixth scale step in the major mode and the second scale step in both modes are frequently lowered. The third in a chord is frequently altered for modulatory purposes.

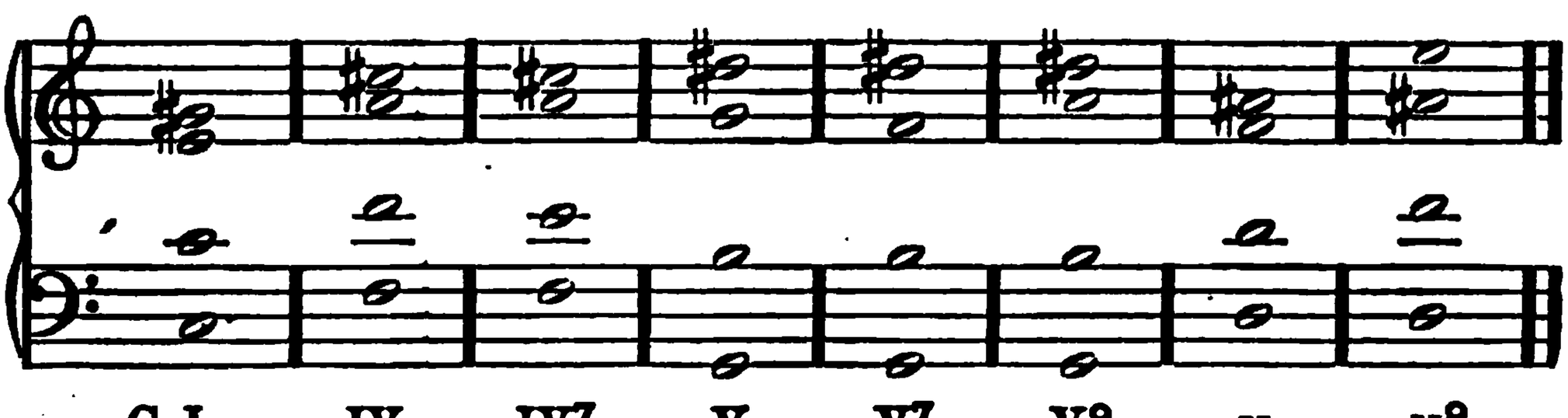
The most common altered chords are:

(1) Chord with raised fifth,
(2) Italian Sixth Chord,
(3) German Sixth Chord,
(4) French Sixth Chord,
(5) Neapolitan Sixth Chord.

(1) Raised Fifth.

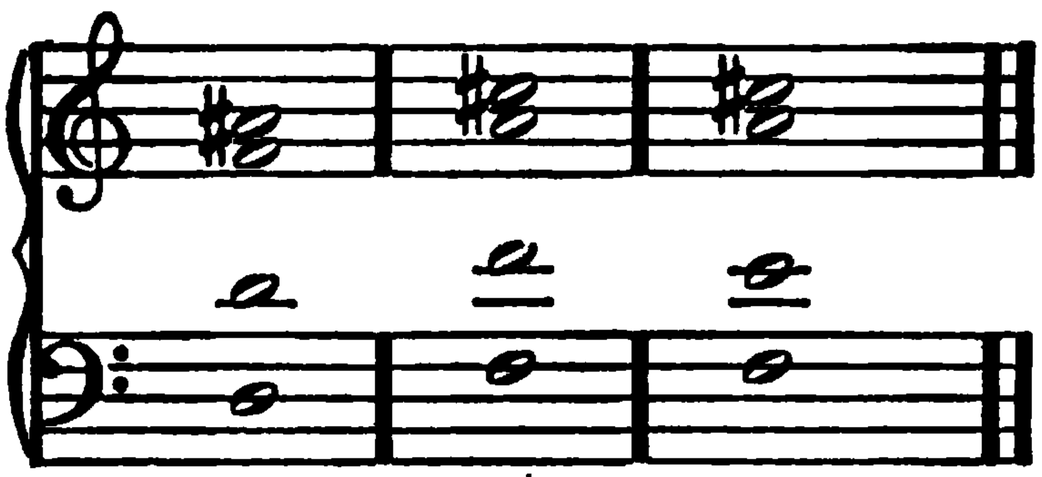
The fifth may be raised one-half step in the following chords: I, IV, IV_7, V, V_7, V_9, II and II_9 (without the 7th) in the major mode and IV, VI and VI_7 in the minor mode. The mediant triad in harmonic minor may be considered a normal scale chord. Raised fifths in other chords result in modulation or faulty voice leading. The raised factor has strong tendency upward chromatically.

Ex. 113, a.



C I_{5+} IV_{5+} IV^7_{5+} V_{5+} V^7_{5+} V^9_{5+} II_{5+} II^9_{5+}

Ex. 118, b.



a IV_{5+} VI_{5+} VI^7_{5+}

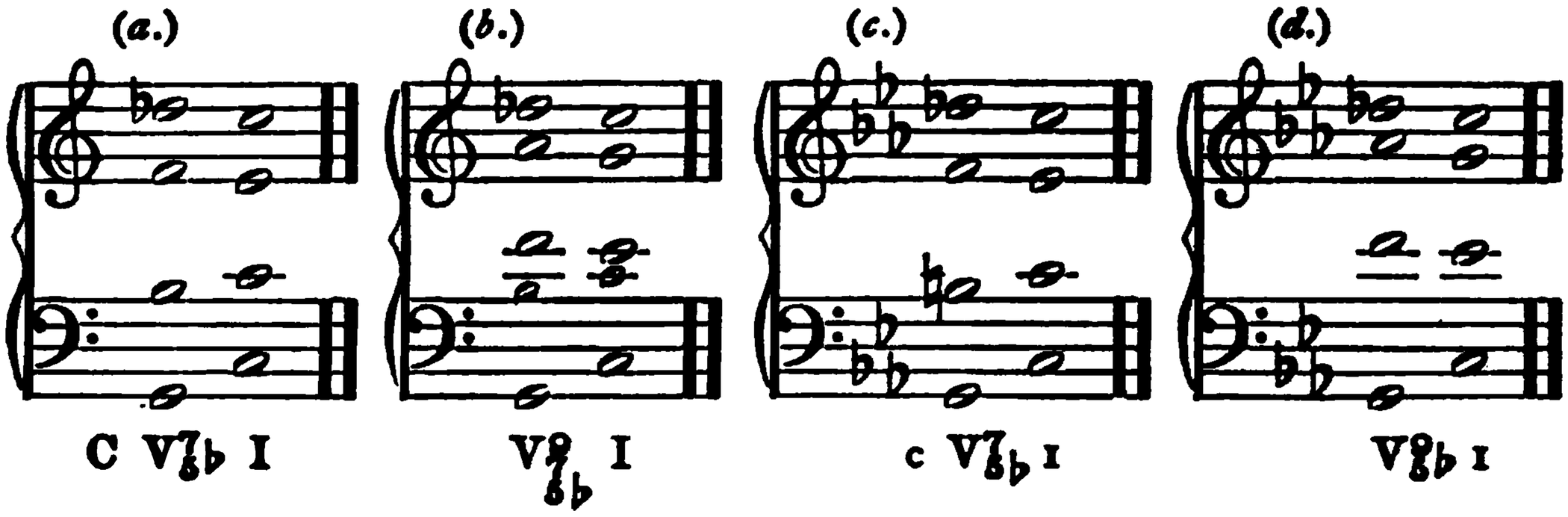
Wherever a scale tone (chordal or non-chordal) is followed by its chromatic alteration, the alteration should take place in the same voice in which the unaltered tone appears, otherwise a *cross relation* results. In all other cases an augmented fifth should be approached from above.*

In the major mode, I_{5+} has tendency to a chord containing the sixth scale step, V_{5+}, V^7_{5+} and V^9_{5+} have tendency to a chord containing the third scale step, and II_{5+} and II^9_{5+} have tendency to a chord containing the seventh scale step. In the minor mode, IV_{5+} has tendency to a chord containing the second scale step, and VI_{5+} and VI^7_{5+} have tendency to a chord containing the fourth scale step. VI_{5+} and VI^7_{5+} are ambiguous chords and have some tendency to change the mode to tonic major.

The dominant seventh chord and ninth chord with lowered fifth are available:

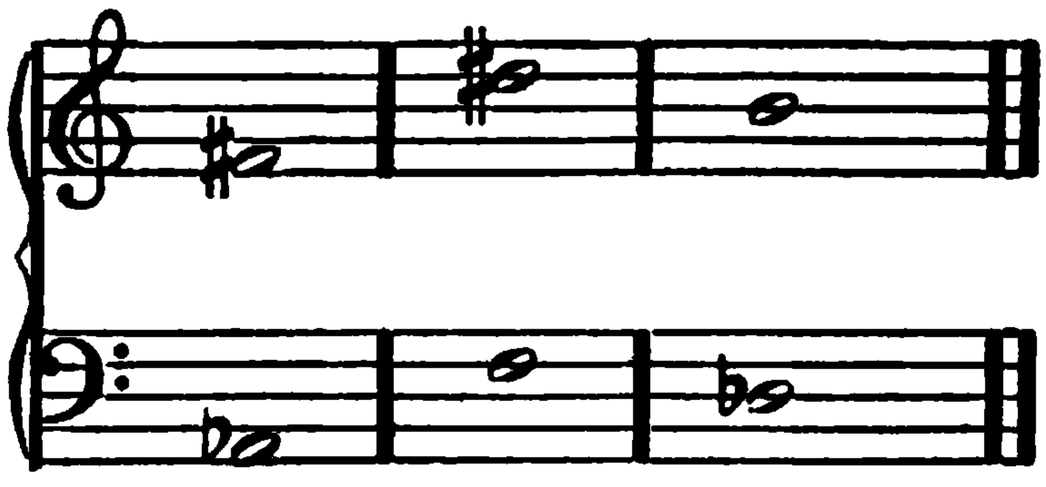
*See Chapter XIII.

Ex. 114.

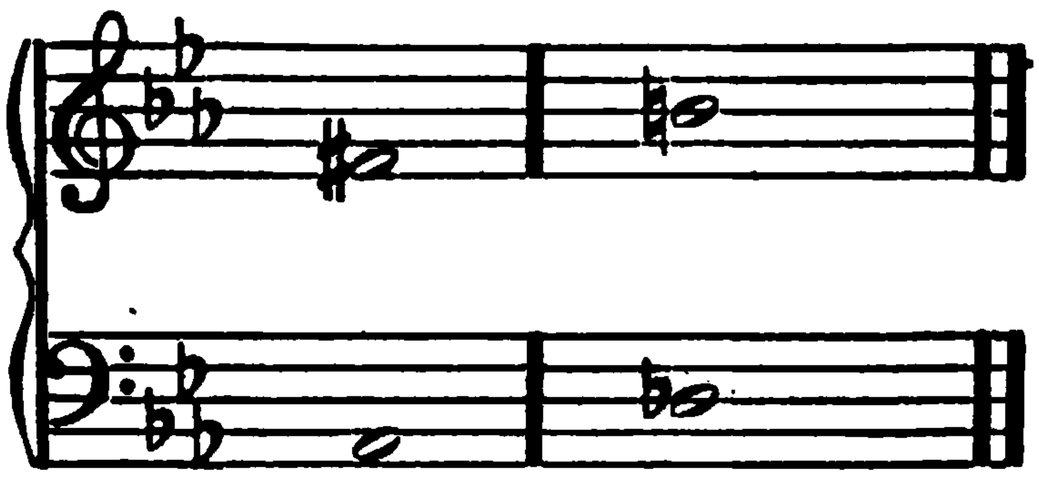
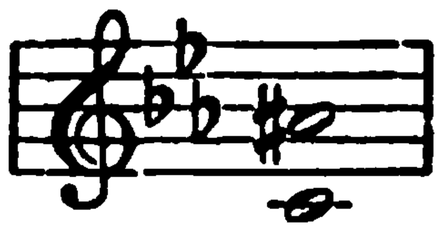
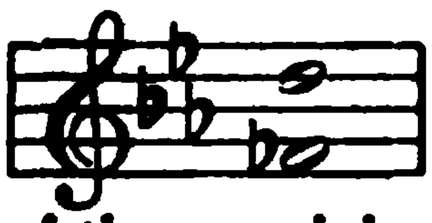


Brahms made effective use of the dominant ninth chord in major and minor with altered fifth.

The most effective altered chords are those in which two voices (usually the outer voices) form an augmented sixth. The various augmented sixths in the key of C major are the following:

Ex. 115.

The following augmented sixth in C major: **normally results by resolution in a chord with doubled leading tone. The augmentation of the remaining sixths in the key of C major normally effect a modulation.***

The various augmented sixths in the key of c minor are:

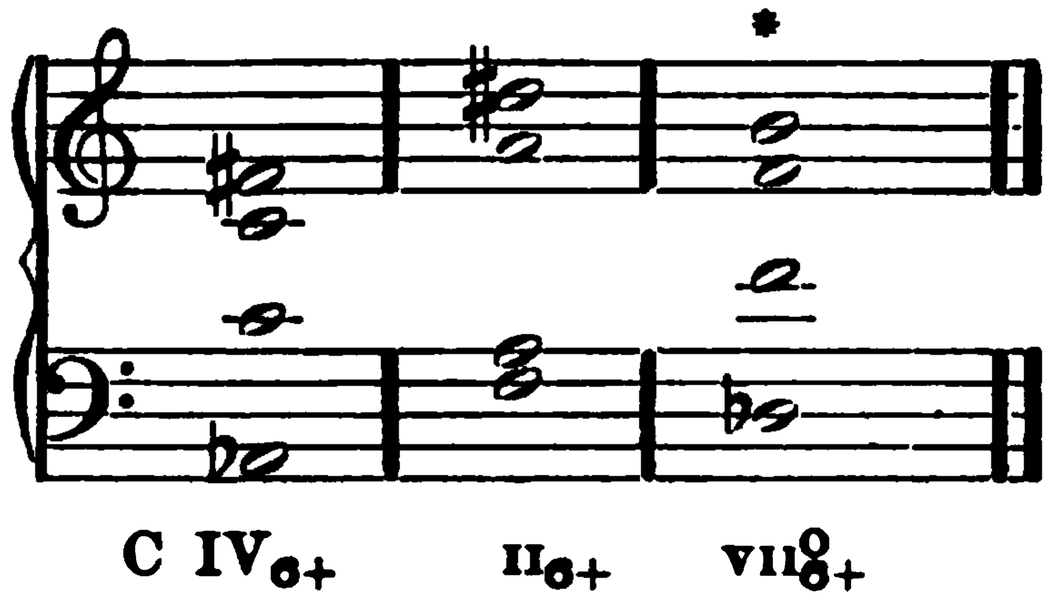
Ex. 116.

The following augmented sixth in c minor:  **normally results by resolution in a chord with doubled leading tone. The following augmented sixth:**  **is not common and has tendency to modulate. The augmentation of the remaining sixths in the key of c minor normally effect a modulation.**

*See the exception, example 136.

(2) Italian Sixth Chord.

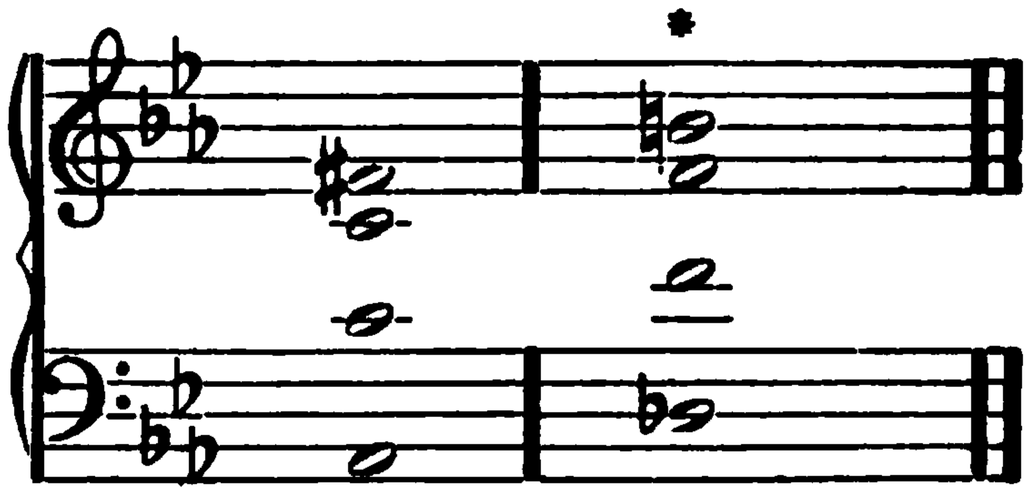
This chord consists of major third and augmented sixth reckoning from the bass. The Italian Sixth Chords in the major mode are as follows:

Ex. 117.



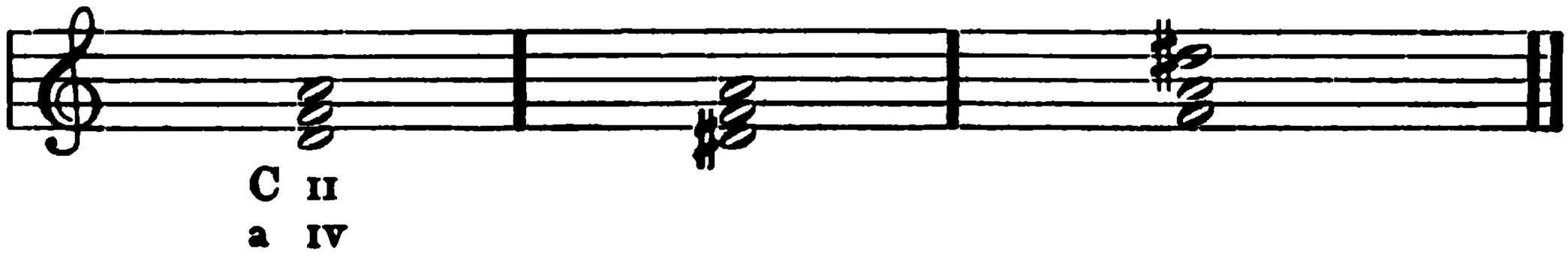
C IV_{6+} II_{6+} VII^{6}_{6+}

The Italian Sixth Chords in the minor mode are as follows:

Ex. 118.

IV_{6+} VII^{o}_{6+}

Many theorists present the Italian Sixth Chord as follows:

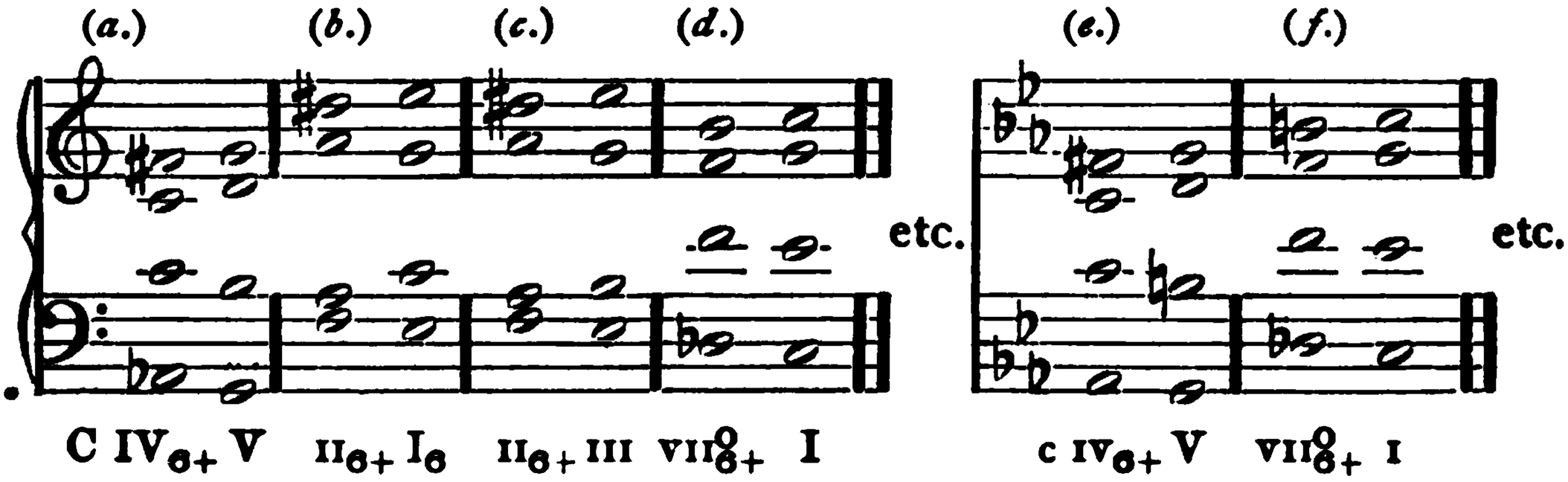
Ex. 119.



C II
a IV

The use of VII^{o}_{6+} in both modes is not common.
The original fifth (present third) is the factor most frequently doubled.
The normal resolutions of the Italian Sixth Chord are as follows:

Ex. 120.



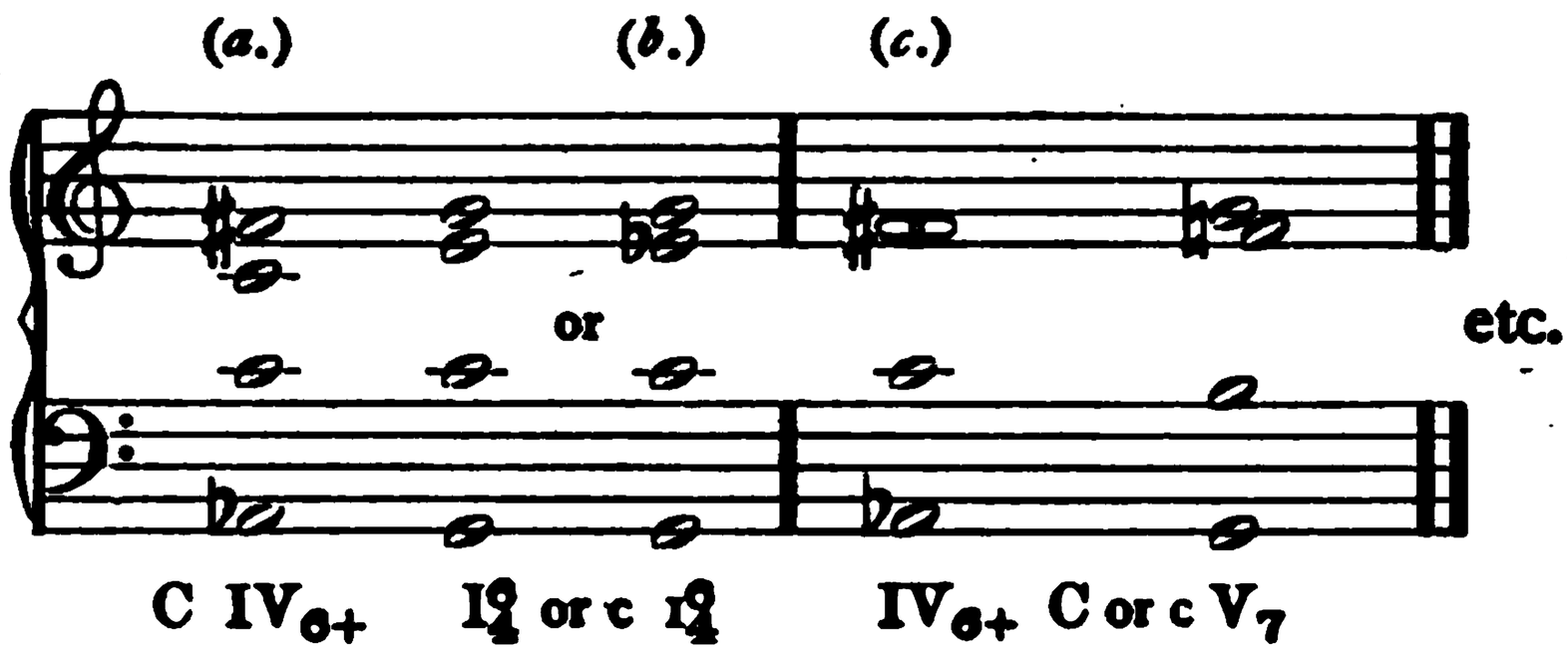
C IV_{6+} V II_{6+} I_{6} II_{6+} III VII^{6}_{6+} I

c IV_{6+} V VII^{6}_{6+} I

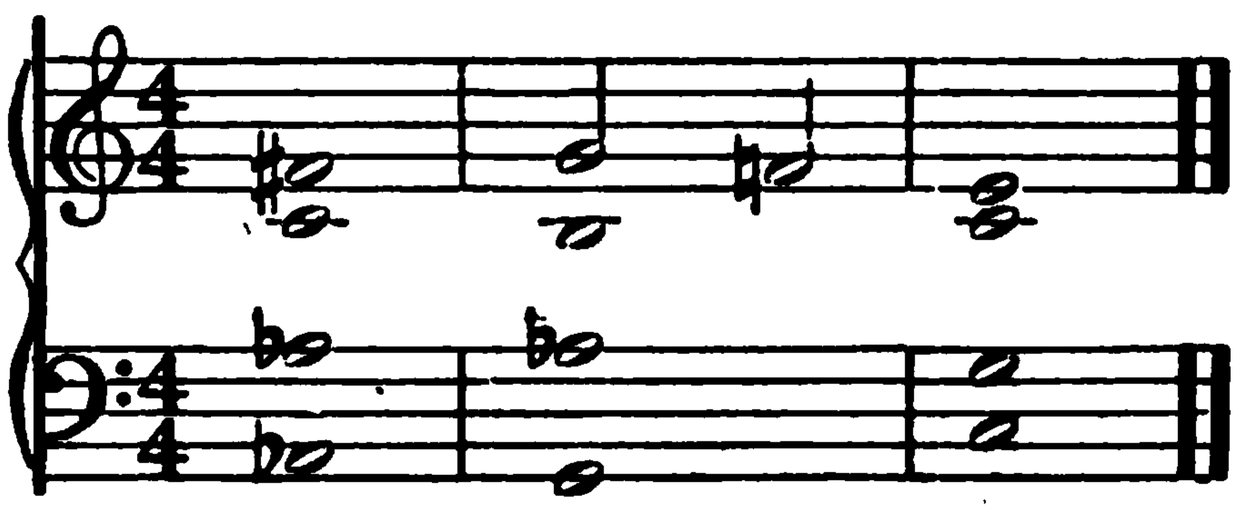
*This chord is like the dominant seventh chord with lowered fifth and without the root. By some theorists it is considered as such.

Other non-modulatory progressions are possible as well as other doublings, for example:

Ex. 121.



Modernists would not scoff at the following harsh but highly dramatic progression:

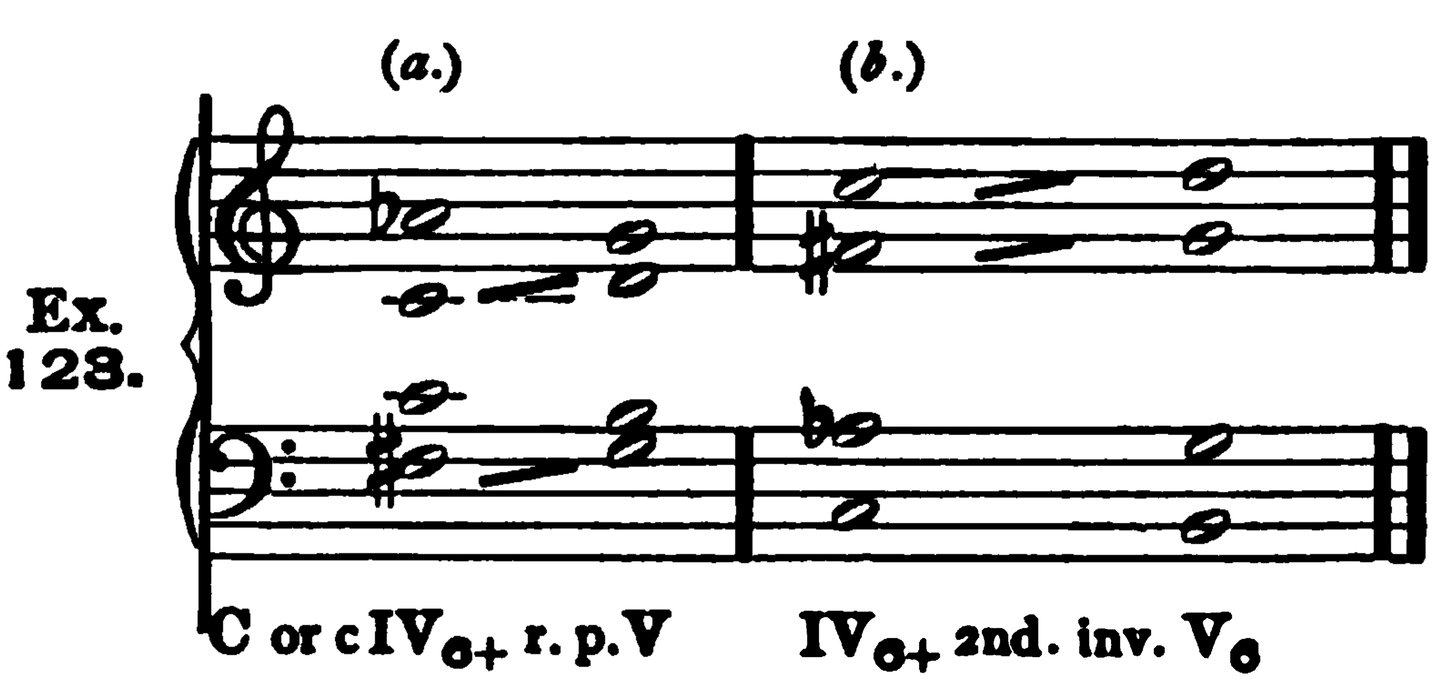
Ex. 122.

Such progressions are instrumental, not vocal.

The student will notice that the melodic line may suggest the use of the chords with augmented sixth, although it is not uncommon to find the upper factor of an augmented sixth chord in an inner voice. (See examples 132 and 137.)

Unless care be taken in using II$_{6+}$, a modulation to the relative minor may result. VII$^{6}_{5+}$ in both modes has power to effect a modulation to the subdominant key. The most characteristic Italian Sixth Chord of a key is therefore IV$_{6+}$.

The root position and the second inversion of the Italian Sixth Chord are occasionally used, and such chords are often ambiguously called "Italian Sixth Chord in Root Position" and "Italian Sixth Chord in Second Inversion." In these two positions, the diminished third is found instead of the augmented sixth. Diminished intervals resolve by contraction.

Ex. 123.

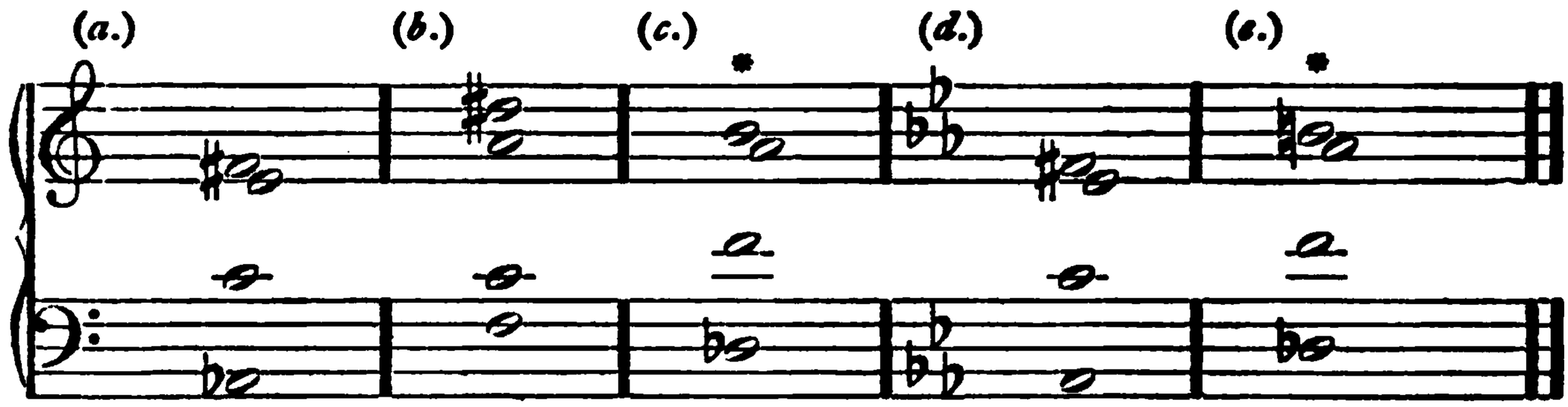


The fifths in the above progressions form the basis for academic objection to the use of the Italian Sixth Chord in other than its normal position.

(3) The German Sixth Chord.

This chord is like the Italian Sixth Chord with the addition of the fifth of the bass as a chord factor, thus:

Ex. 124.

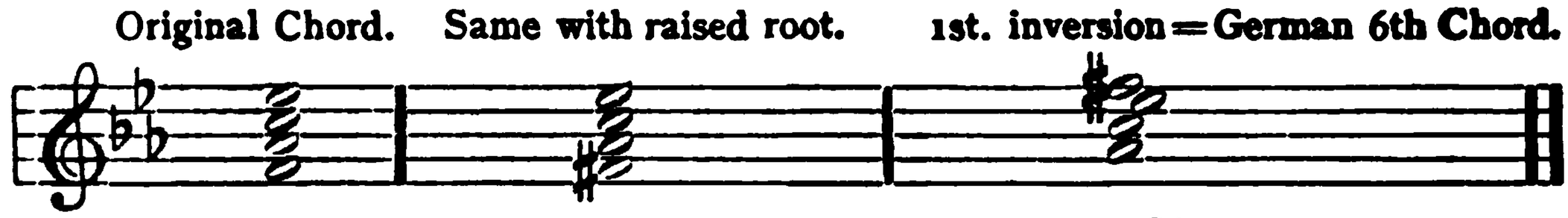


C $IV^{6}_{3}\sharp$ $II^{6}_{5}+$ $VII^{o6}_{3}\sharp$ c $IV^{6}_{3}+$ $VII^{o6}_{3}+$

Doubling of factors in the German Sixth Chord is not necessary in four voice writing.

Many theorists present the German Sixth Chord as follows:

Ex. 125.

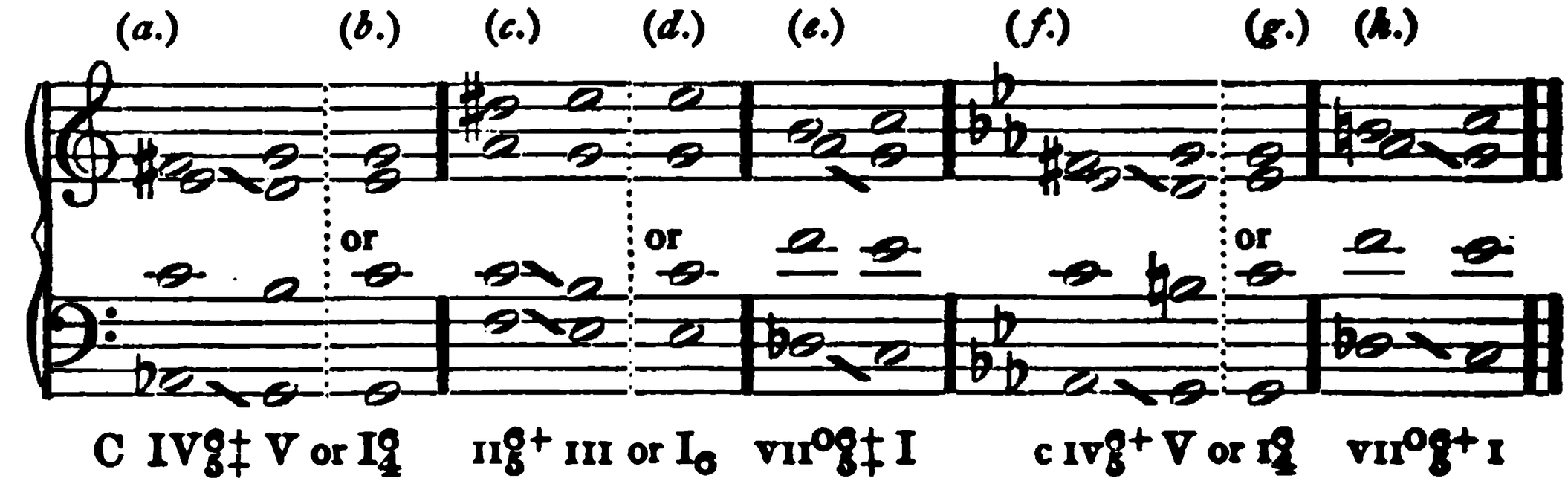


c IV_7 Altered IV_7 $IV^{6}_{3}+$

The most characteristic German Sixth Chord is $IV^{6}_{3}+$. Notice that C $IV^{6}_{3}\sharp$ and C $VII^{o6}_{3}\sharp$ have augmented fifths. Some theorists do not consider these chords German Sixth Chords.

Resolutions follow:

Ex. 126.



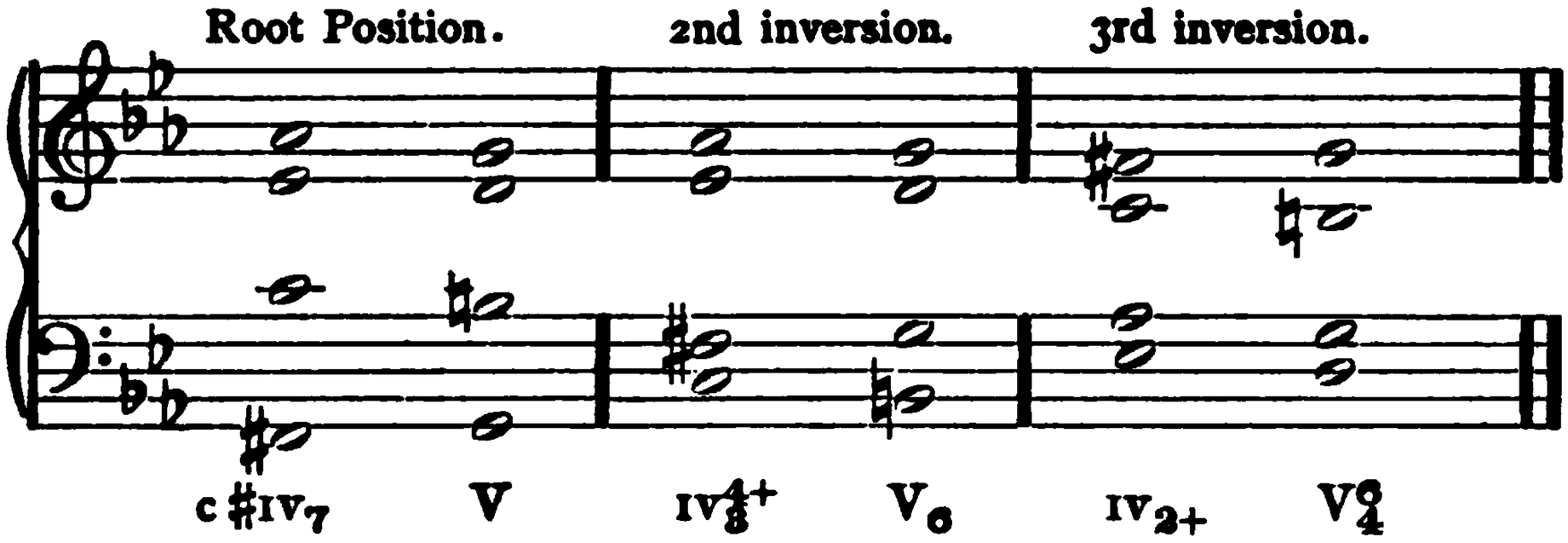
C $IV^{6}_{3}\sharp$ V or I^{6}_{4} $II^{6}_{5}+$ III or I_6 $VII^{o6}_{3}\sharp$ I c $IV^{6}_{3}+$ V or I^{6}_{4} $VII^{o6}_{3}+$ I

The parallel fifths in the above progressions are countenanced, especially with suspension 6–5. $IV^{6}_{3}\sharp$ and $IV^{6}_{3}+$ are frequently resolved to I^{6}_{4} and I^{6}_{4} respectively, to avoid the fifths. Similarly, the fifths in progressions $II^{6}_{3}+$–III, $VII^{o6}_{3}\sharp$ –I and $VII^{o6}_{3}+$ –I are tolerated.

Like the Italian Sixth, the German Sixth Chord is occasionally used in root position and in second inversion, also in third inversion, and is ambiguously called the "German Sixth Chord in Root Position," etc.

* Like V^{9}_{7} without root and is considered as such by some theorists.

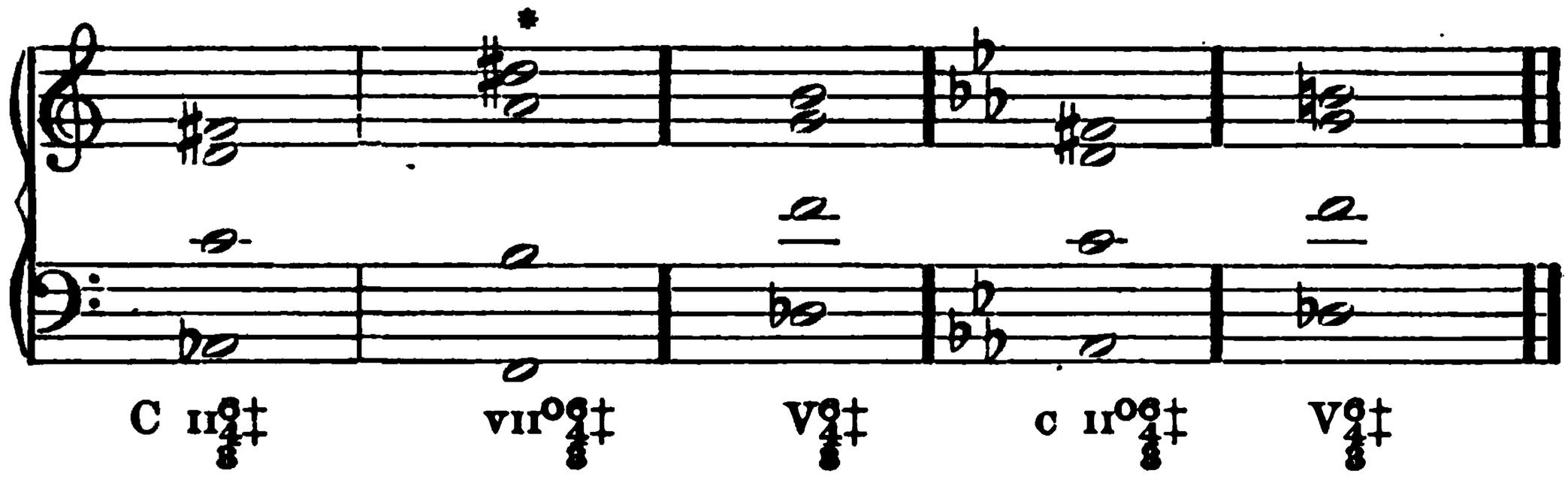
Ex. 127.



(4) The French Sixth Chord.

This chord is like the Italian Sixth Chord with the addition of the fourth of the bass as a chord factor, thus:

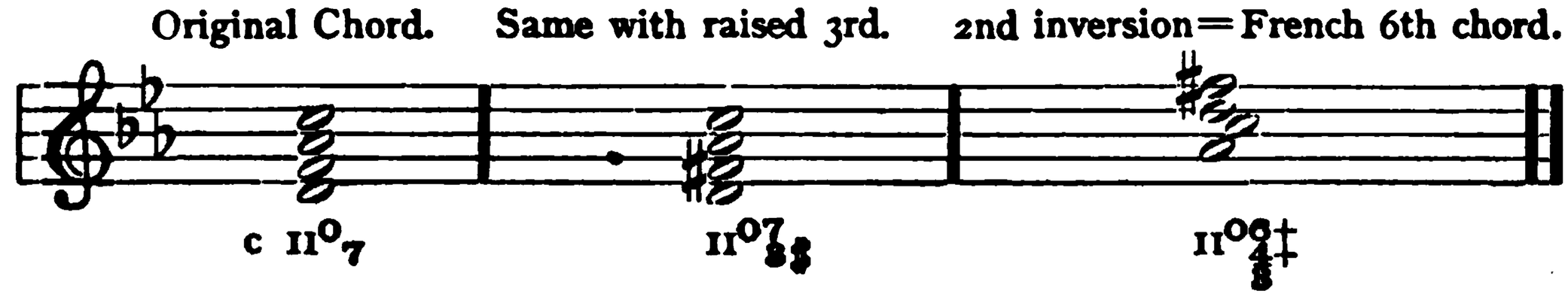
Ex. 128.



Many theorists present the French Sixth Chord as follows:

Original Chord. Same with raised 3rd. 2nd inversion = French 6th chord.

Ex. 129.



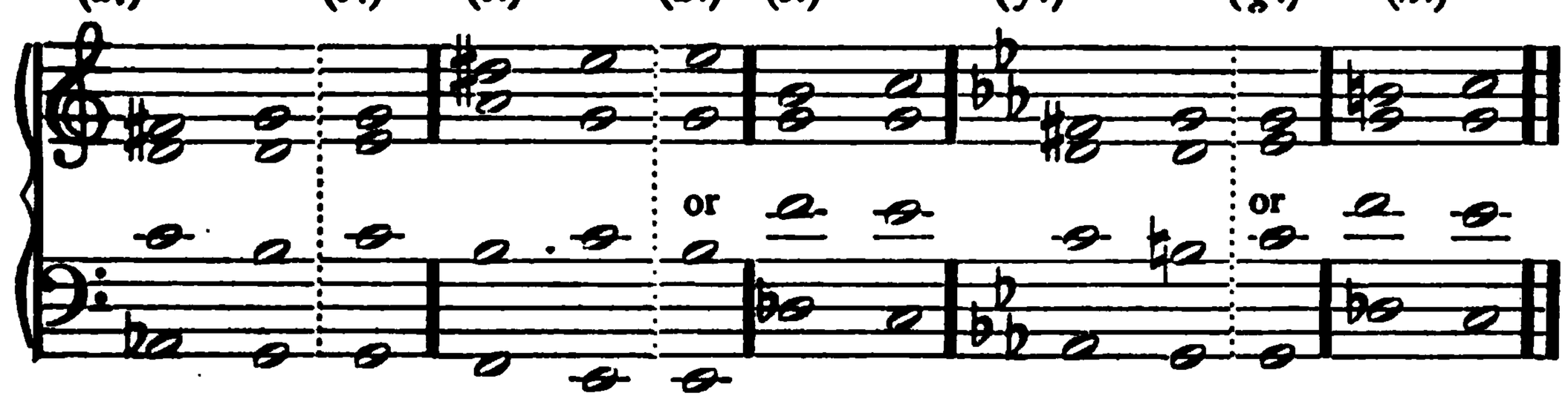
Notice that the augmented sixths in the Italian and German Sixth Chords form the following chords, IV, II and VII° (in major) and IV and VII° (in minor) whereas the corresponding augmented sixths in the French Sixth Chords form the following chords II, VII° and V (in major) and II° and V (in minor).

The doubling of a factor in the French Sixth Chord is not necessary in four voice writing.

Resolutions follow:

(a.) (b.) (c.) (d.) (e.) (f.) (g.) (h.)

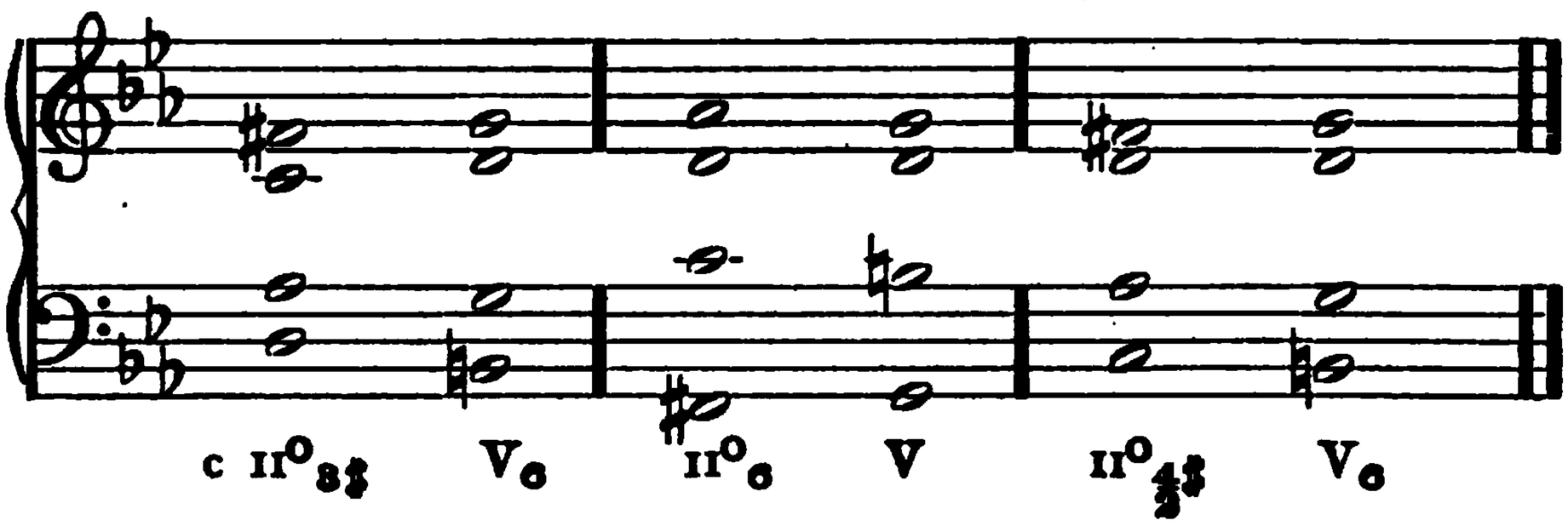
Ex. 130.



*Like V^{9}_{7} without root and is considered as such by some theorists.

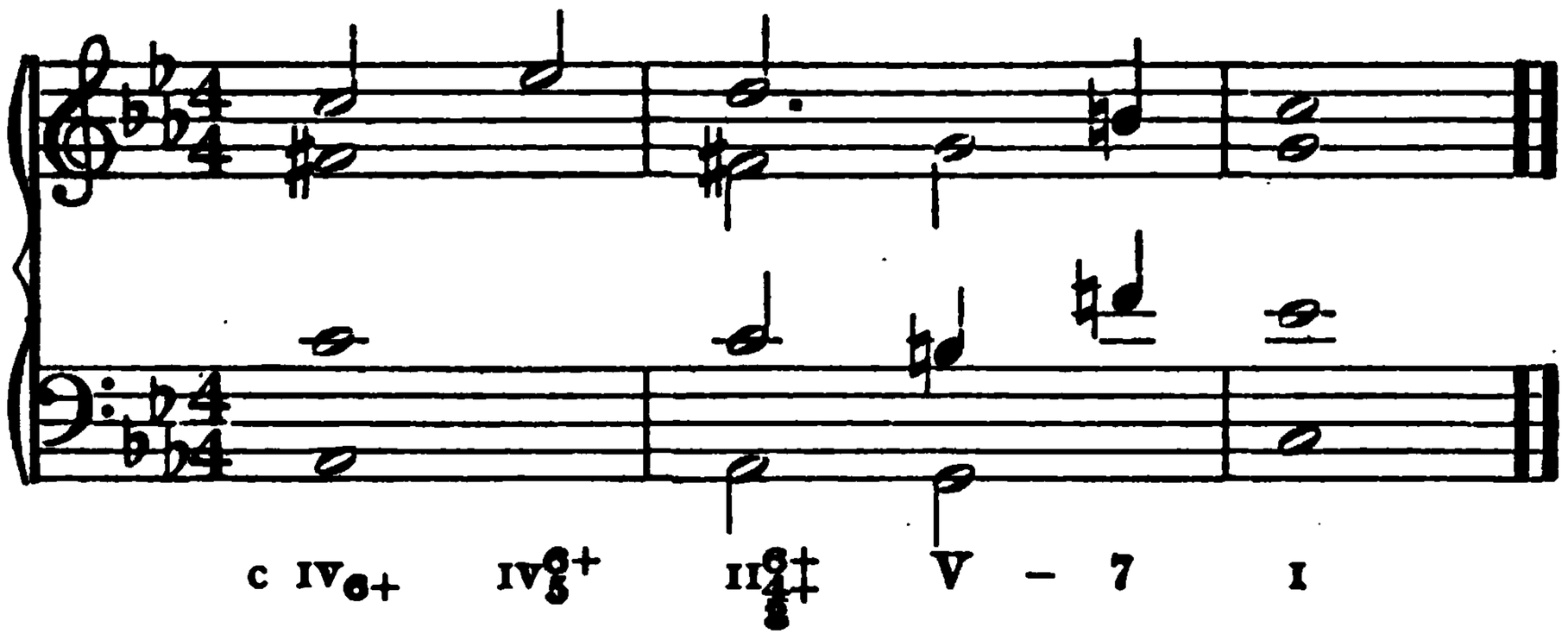
This chord may be used in root position, first inversion and third inversion and is ambiguously called the "French Sixth Chord in Root Position," etc.

Ex. 181.



Progressions of both the German and French Sixth Chords other than the normal progressions given are possible (see progressions of the Italian Sixth Chord). The Italian, German, and French Sixth Chords may progress one to another. The progression of the German Sixth to the French Sixth Chords is another way of avoiding the parallel fifths mentioned heretofore.

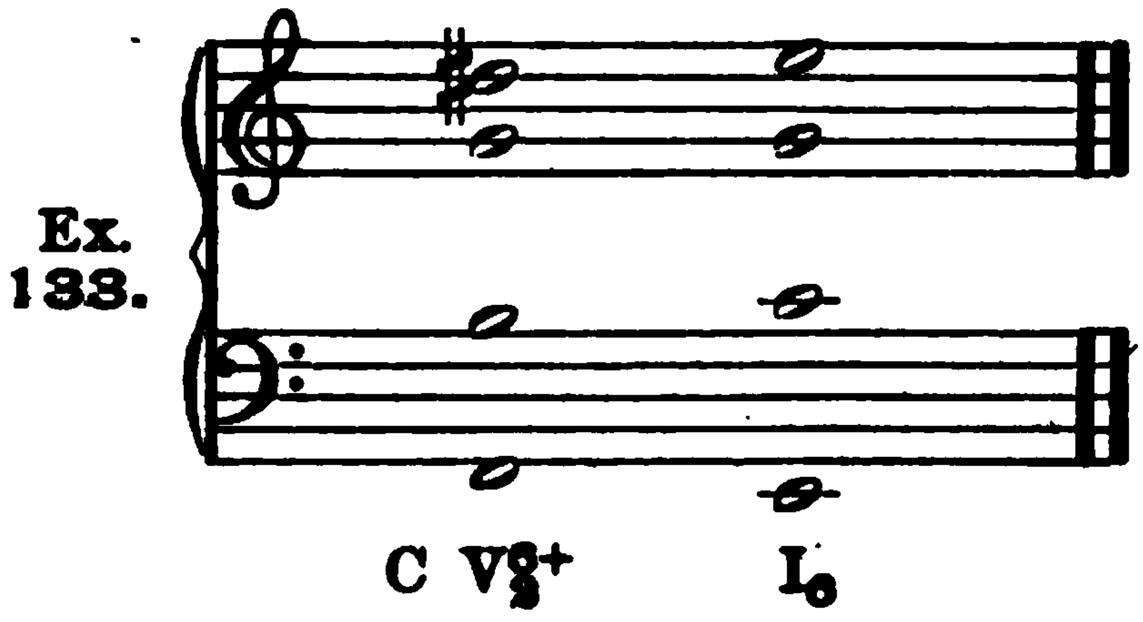
Ex. 182.



The names of the preceding augmented sixth chords have little significance but are valuable in the same way that all names are. Some text books refer to them respectively as "Chord of the Augmented Sixth," "Augmented Chord of the Sixth- Fifth- and Third" and "Augmented Chord of the Sixth- Fourth- and Third."

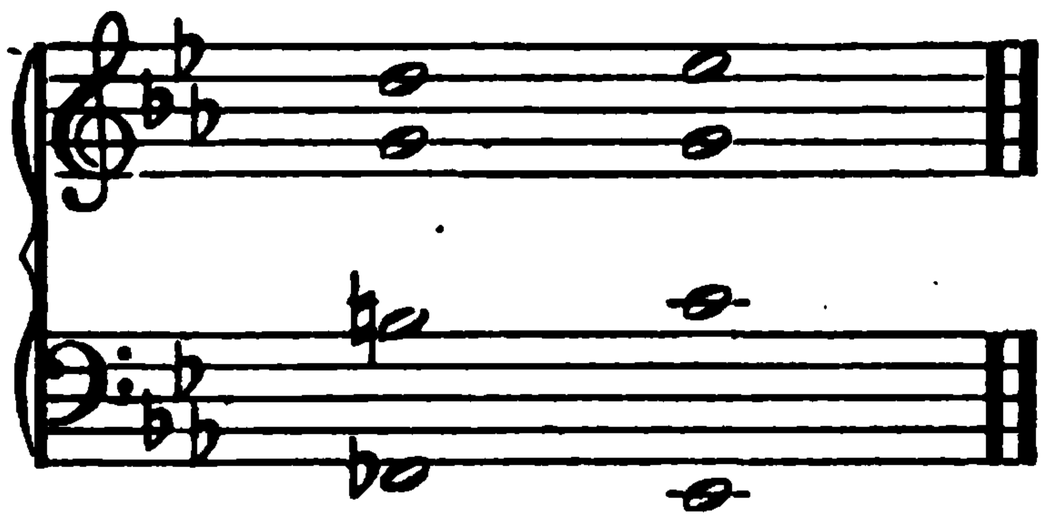
An effective augmented sixth chord which is not included in the above groups is the dominant seventh chord in the major mode with raised fifth in its third inversion, thus:

Ex. 183.



The dominant chord in the minor mode with lowered seventh in its third inversion also forms an effective augmented sixth chord. It consists of augmented second, doubly augmented fourth and augmented sixth, thus:

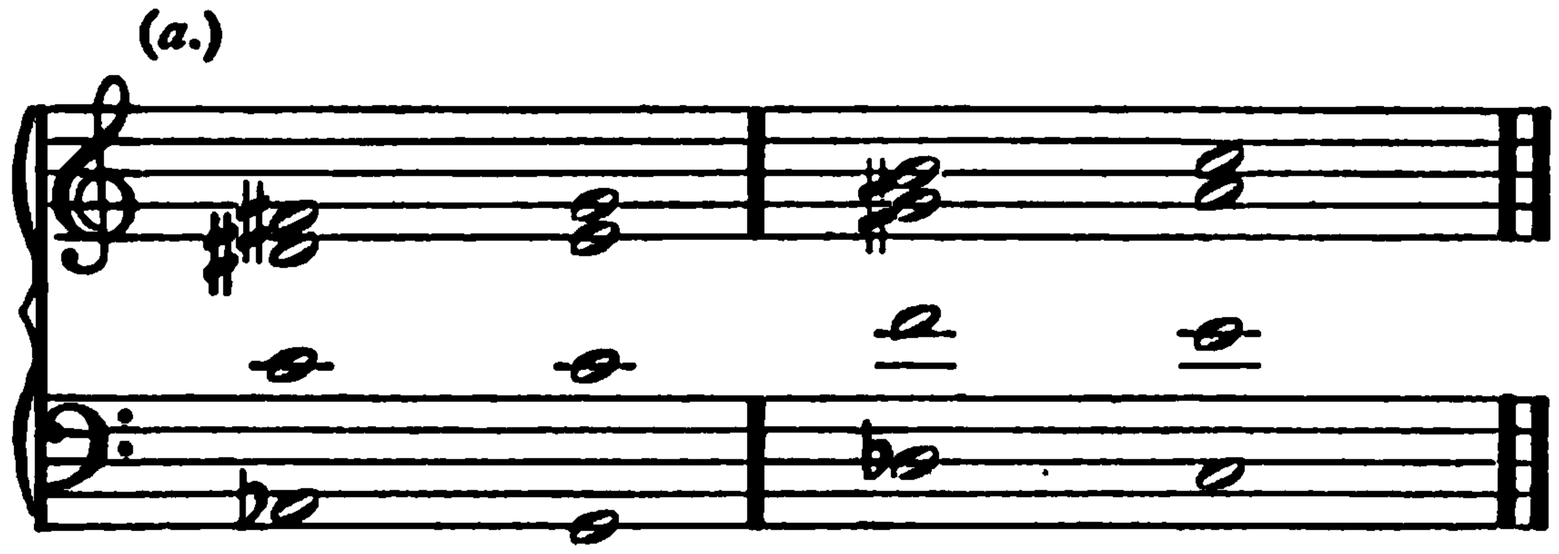
Ex. 134.



c V$^{8}_{4}$$_{3}$ I

The following augmented sixth chord formation is available:

Ex. 135.

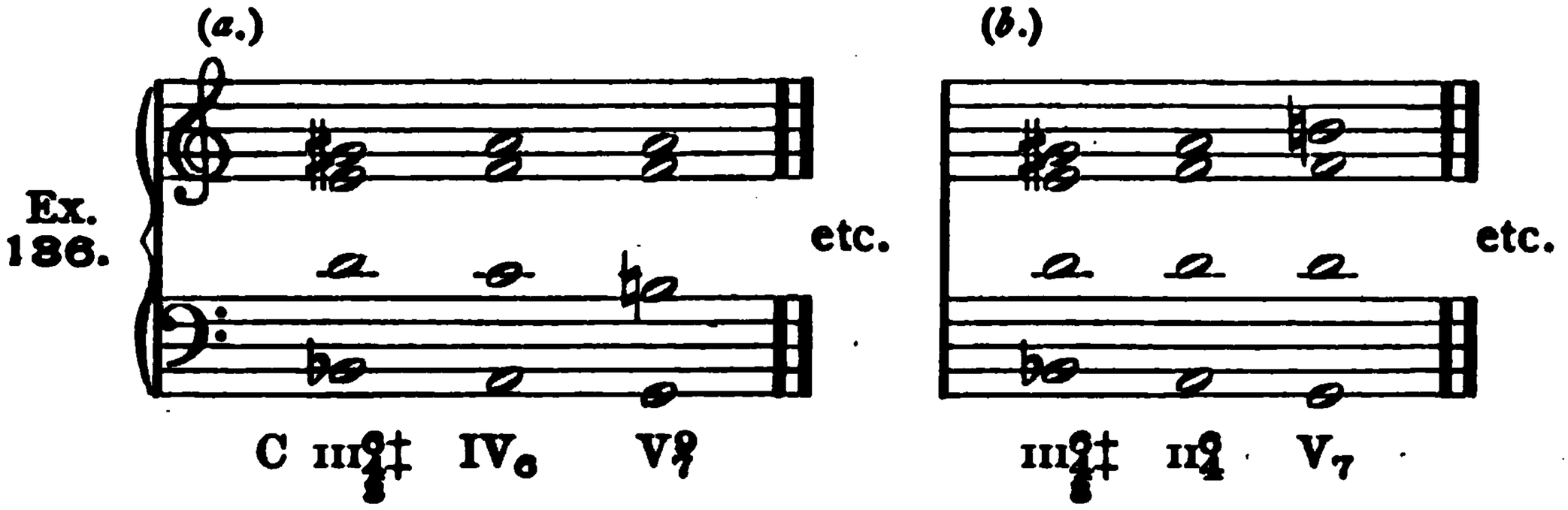


C #II$^{8}_{4}$$_{3}$ I$^{6}_{4}$ a VII$^{o8}_{4}$$_{3}$ I$_{6}$

The above chord is formed with major third, double augmented fourth and augmented sixth. The chord is more useful as the sharp supertonic in the major mode than as the subtonic in the minor mode. This chord has been named the "American Sixth Chord," by Mr. H. R. Palmer.*

The mediant chord may be altered to an augmented sixth as follows:

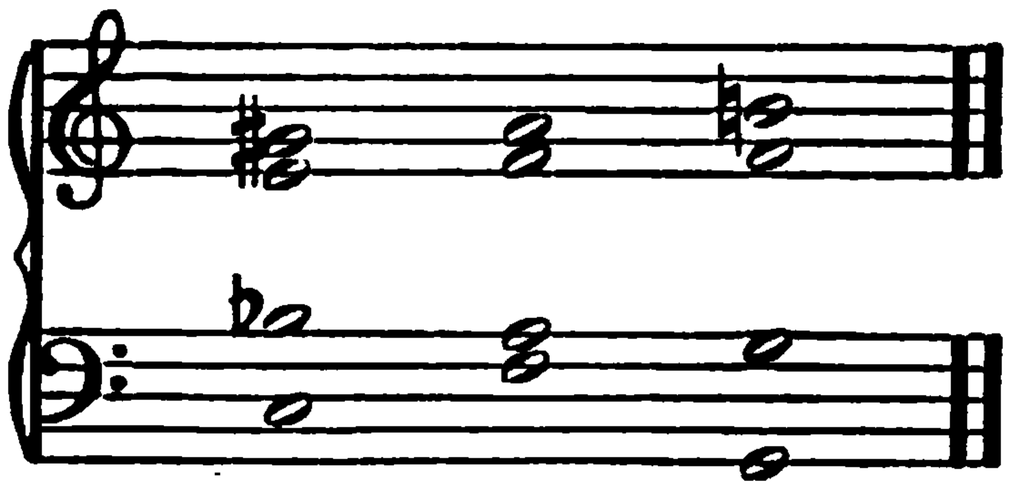
Ex. 136.



C III$^{8}_{4}$$_{3}$ IV$_{6}$ V$^{8}_{7}$ III$^{8}_{4}$$_{3}$ II$^{6}_{4}$ V$_{7}$

The tonic seventh chord may be altered in such a manner that an augmented sixth appears between two of its factors. The root position of this chord is the most satisfactory.

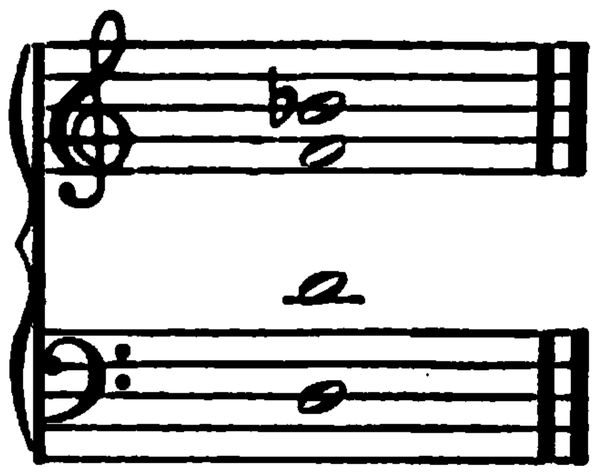
*See Palmer's *Theory of Music*, published by The John Church Co.

Ex. 137.

Such chords as $III^{6\sharp}_{4\sharp}$ and $I^{7\flat}_{5\sharp}$ require careful treatment — a smooth approach and a logical resolution. Notice that the two most salient tones of the key are altered.

(5) The Neapolitan Sixth Chord.

This chord is an altered supertonic chord in the minor mode and is formed with minor third and minor sixth, thus:

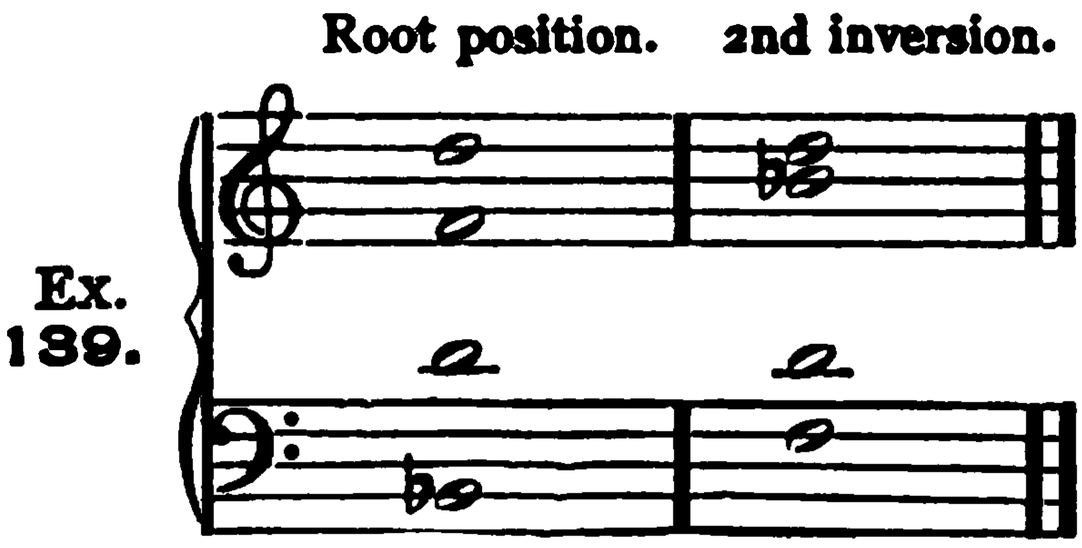
Ex. 138.



a $\flat II^{6}_{3}$

The chord may be used in the major mode. It is occasionally used in root position and in second inversion, thus:

Ex. 139.



a $\flat II^{6}$ $\flat II^{6}_{4(\flat)}$

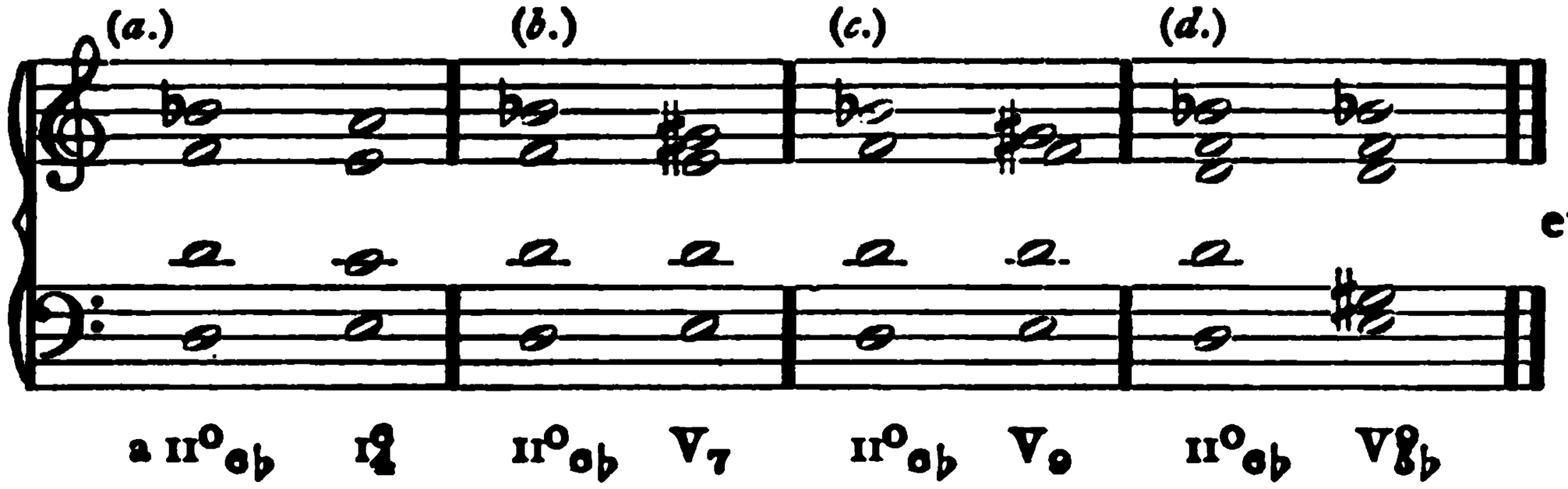
The original third is the factor most frequently doubled as in the above examples. The altered factor may be doubled and in this respect, the altered factor in the Neapolitan Sixth Chord differs from altered factors in other chords.

The Neapolitan Sixth Chord normally progresses to tonic six-four or dominant harmony, thus:

Normal Position. Five voices.

(a.) (b.) (c.) (d.)

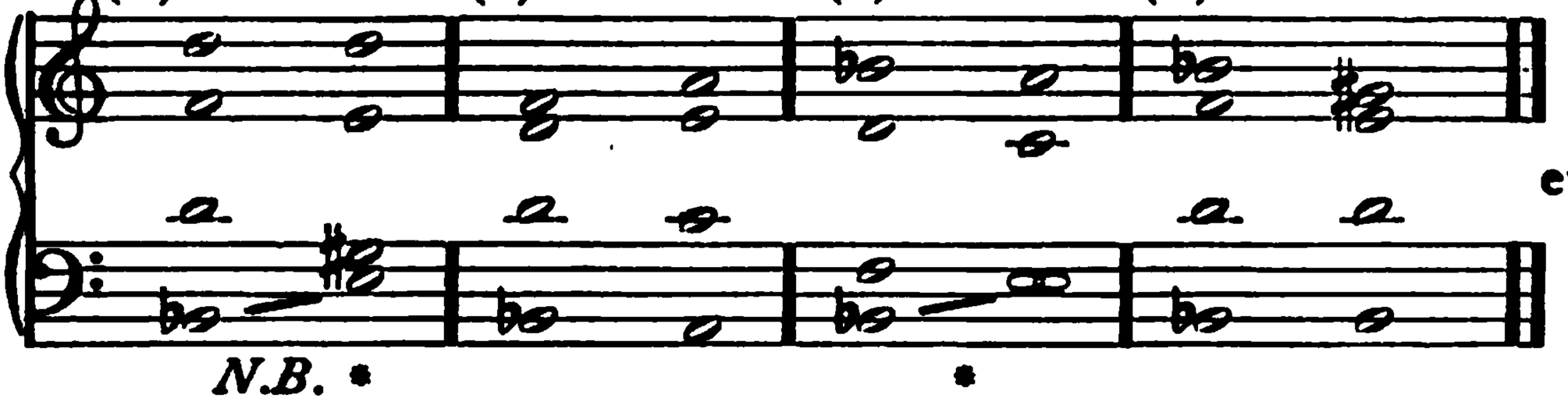
Ex. 140.



Root Position. doubled root. to French 6th.

(a.) (b.) (c.) (d.)

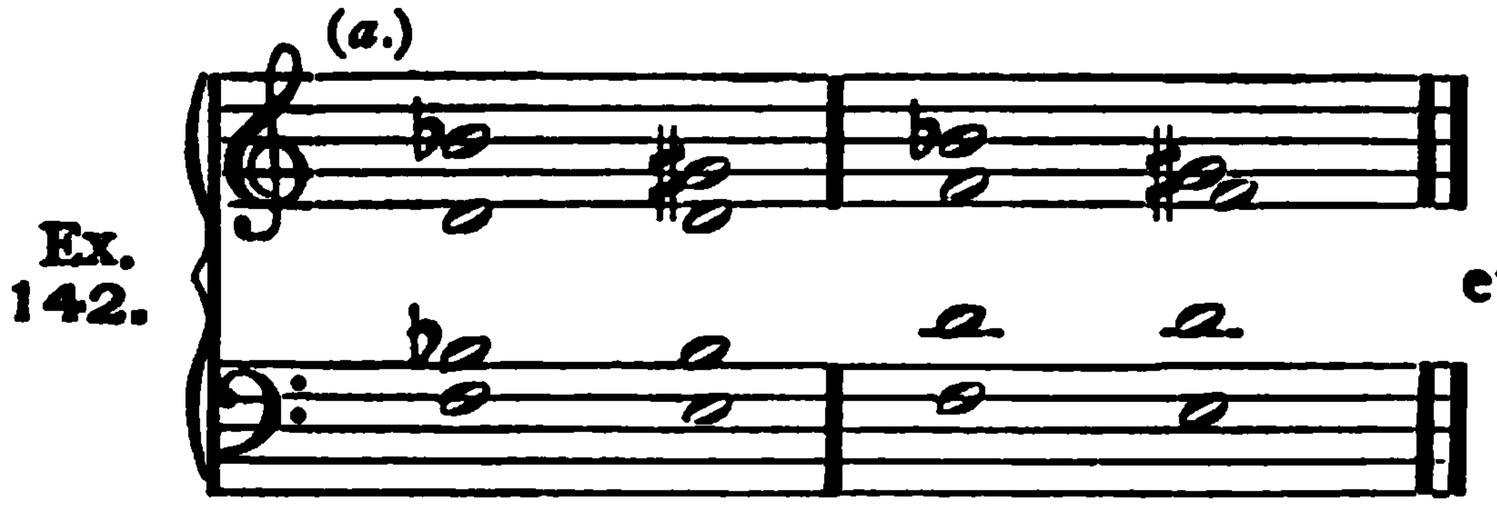
Ex. 141.



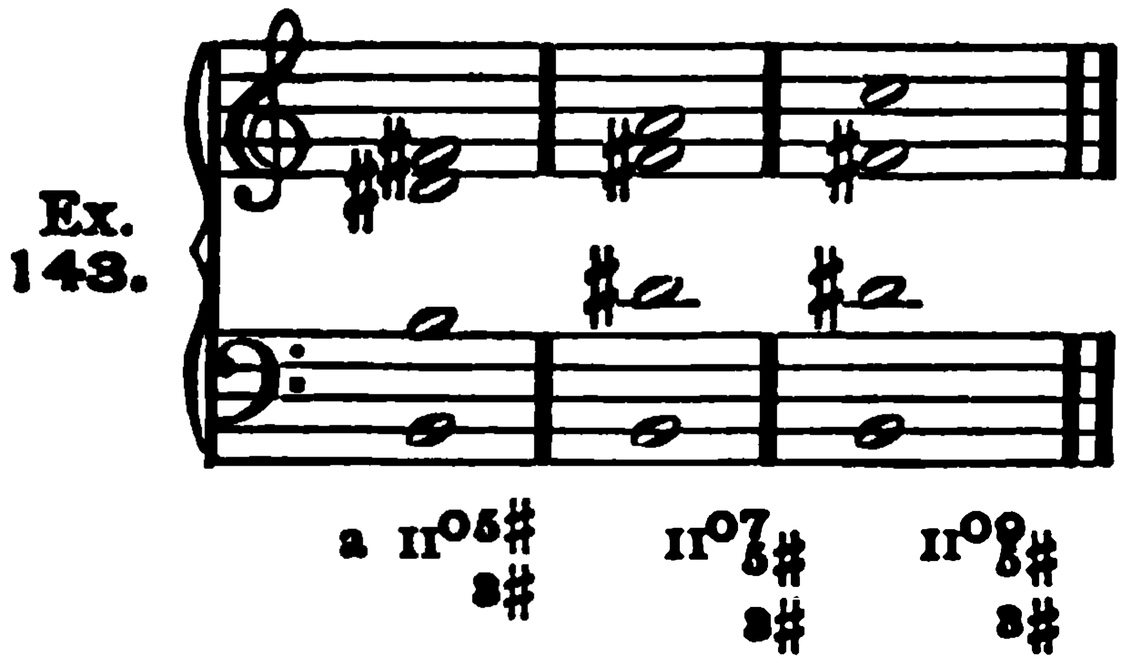
Second Inversion.

(a.)

Ex. 142.



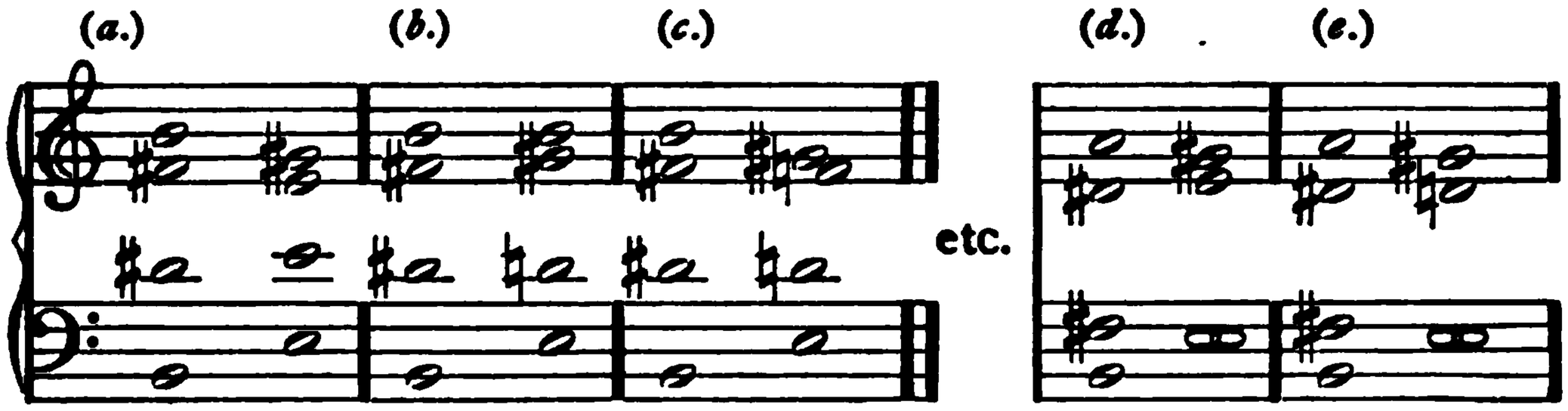
Factors three and five in the supertonic chord in the minor mode may be raised one-half step as follows:

Ex. 143.

Of the various inversions of the chord, the first is the most practical.

*The augmented fourth in the bass is possible in instrumental composition but should be avoided in vocal composition. See Chopin, Prelude, number 20.

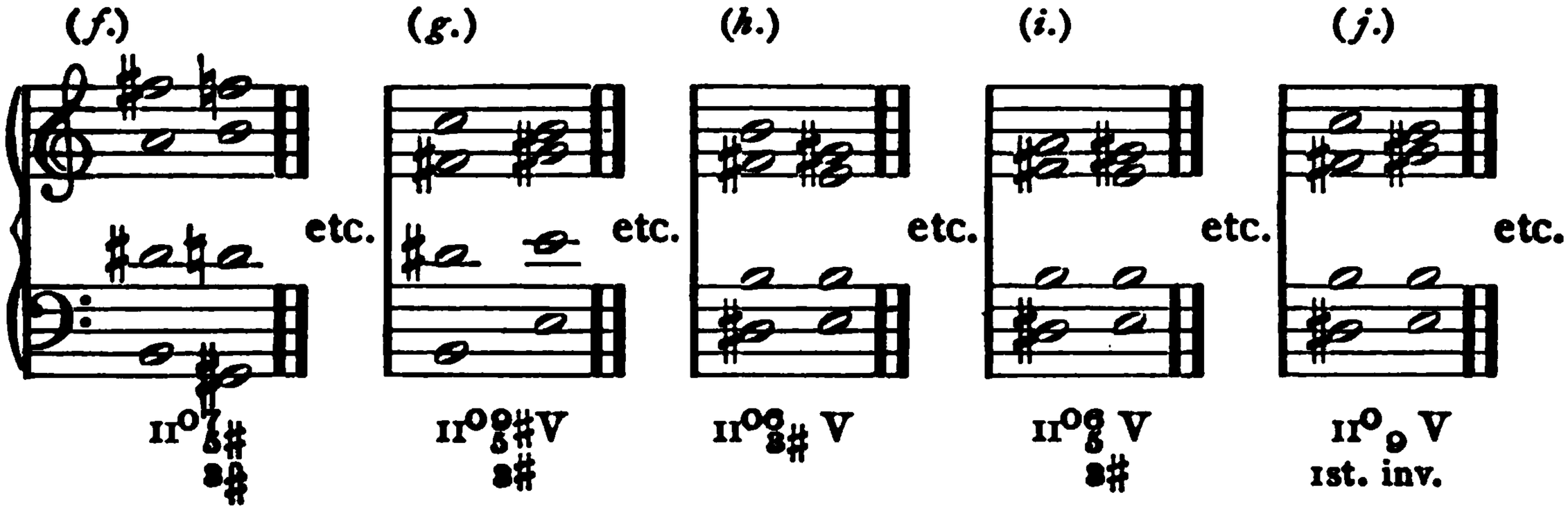
Progressions follow:

Ex. 144.



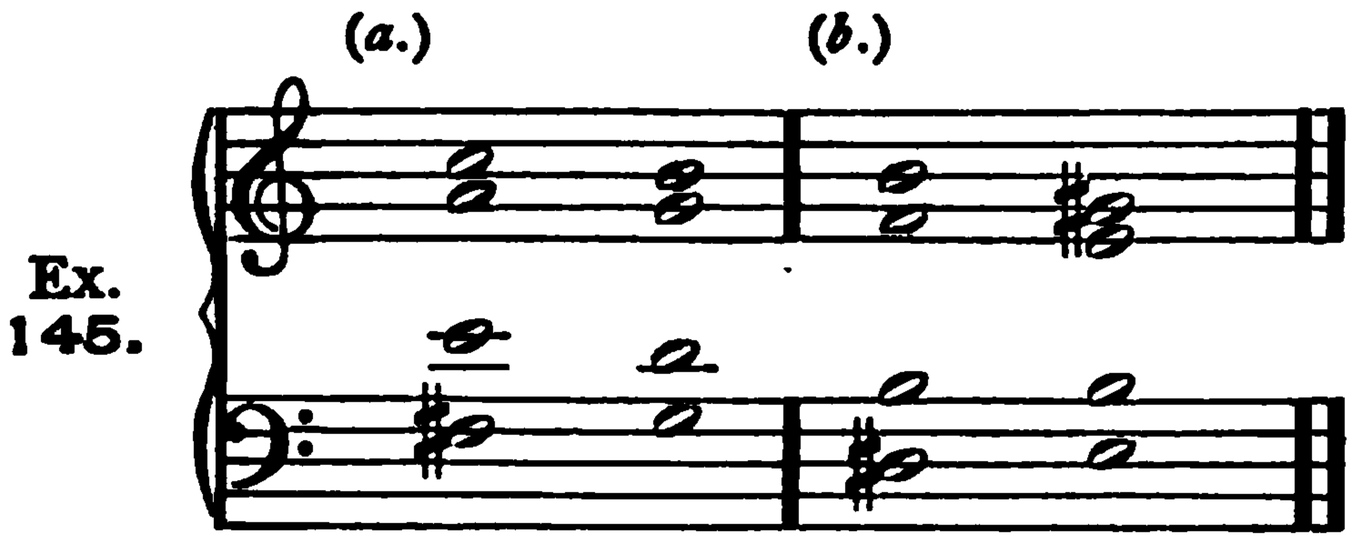
a $II^{o5\#}_{3\#}$ V $II^{o5\#}_{3\#}$ V_7 $II^{o5\#}_{3\#}$ V_9 $II^{o7}_{5\#}$ V $II^{o7\#}_{5\#}$ V_7

First Inversion.



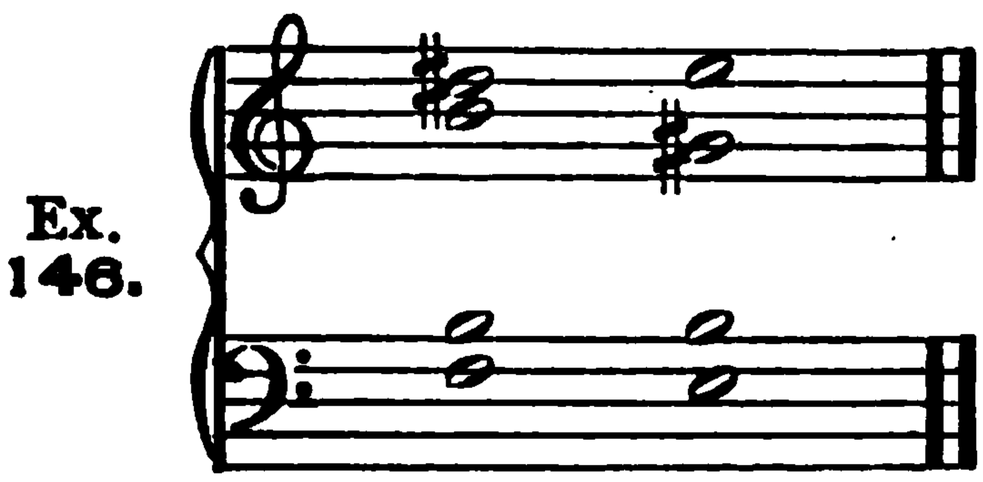
$II^{o7}_{5\#}$ $II^{o9}_{5\#}$ V $II^{o6}_{3\#}$ V II^{o6}_{3} V II^{o}_{9} V 1st. inv.

The subdominant seventh chord in the major mode with raised root and the supertonic chord in the minor mode with raised third in first inversion are useful chords:

Ex. 145.

C #IV_7 V a #II^{o}_{6} V

The altered chord in the second progression in the above example may be written as an augmented sixth chord:

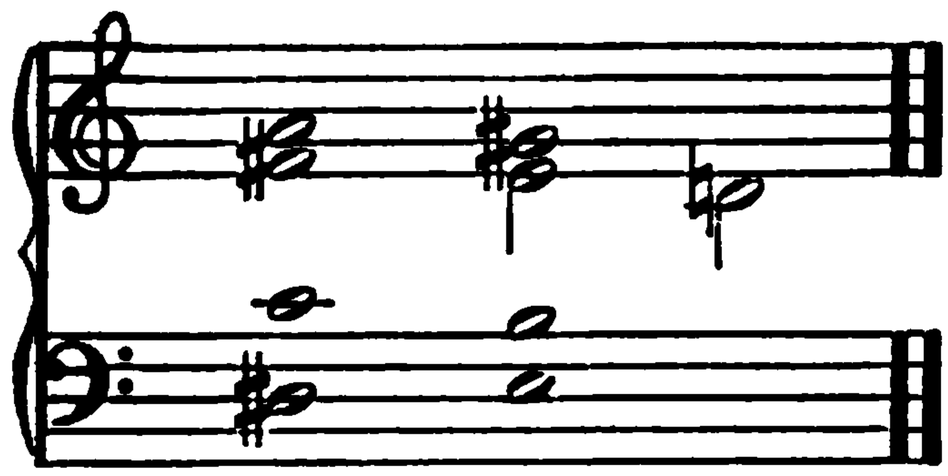
Ex. 146.



a $II^{o6}_{4\ddagger}$

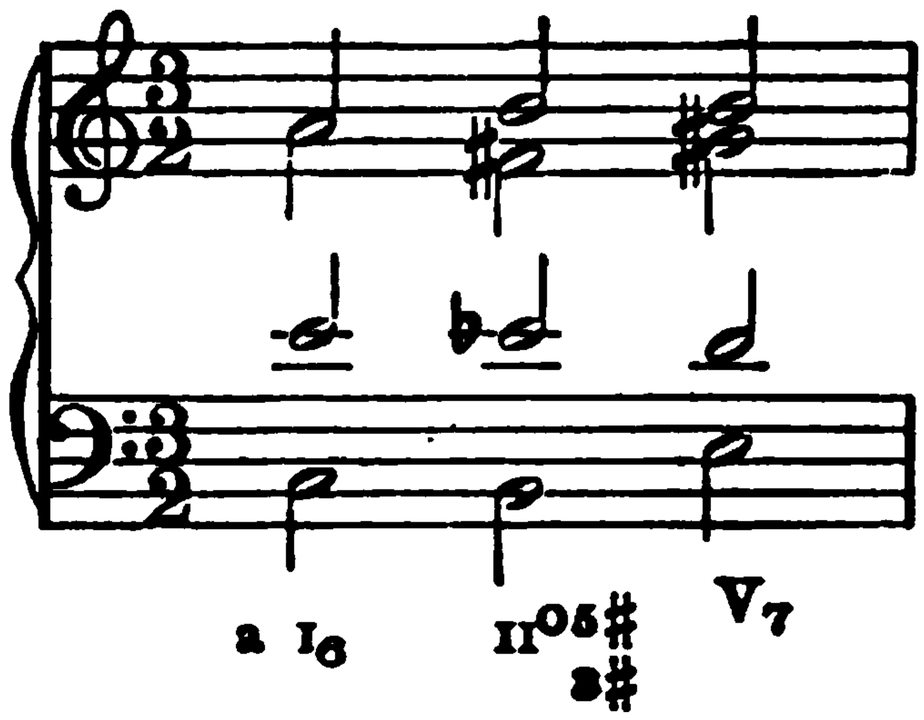
The subdominant seventh chord with raised root and third in the minor mode is available:

Ex. 147.



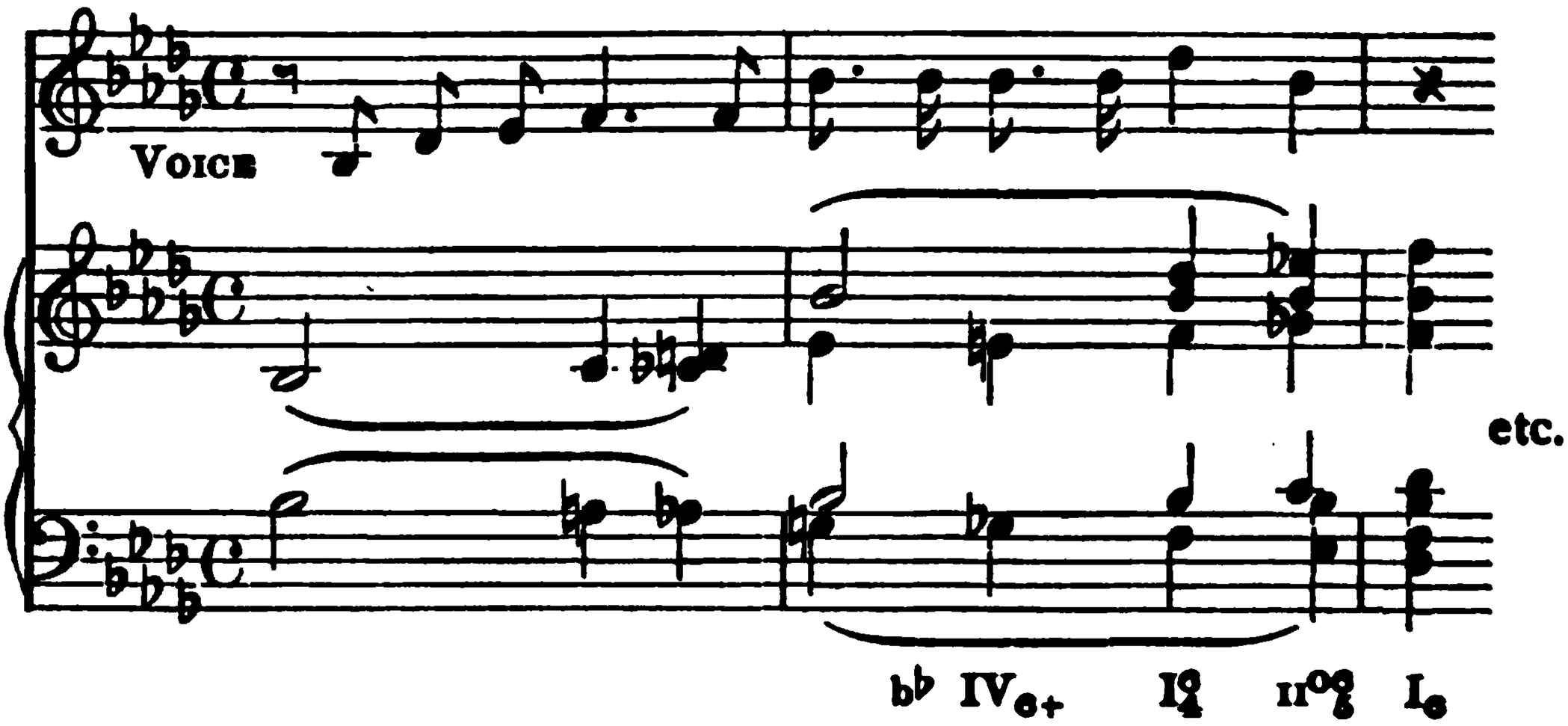
a #IV$^{7}_{5\#}$ V ——— 7

Difficulty in analyzing altered chords is often experienced because of enharmonic notation.* It is customary among composers and editors to notate in a way which offers the least difficulty to the instrumentalist and vocalist in reading. For example, the second progression in Example 144 is chosen; if the d-sharp in the tenor part be approached from e the notation is likely to be as follows:

Ex. 148.

a I$_6$ II$^{05\#}_{3\#}$ V$_7$

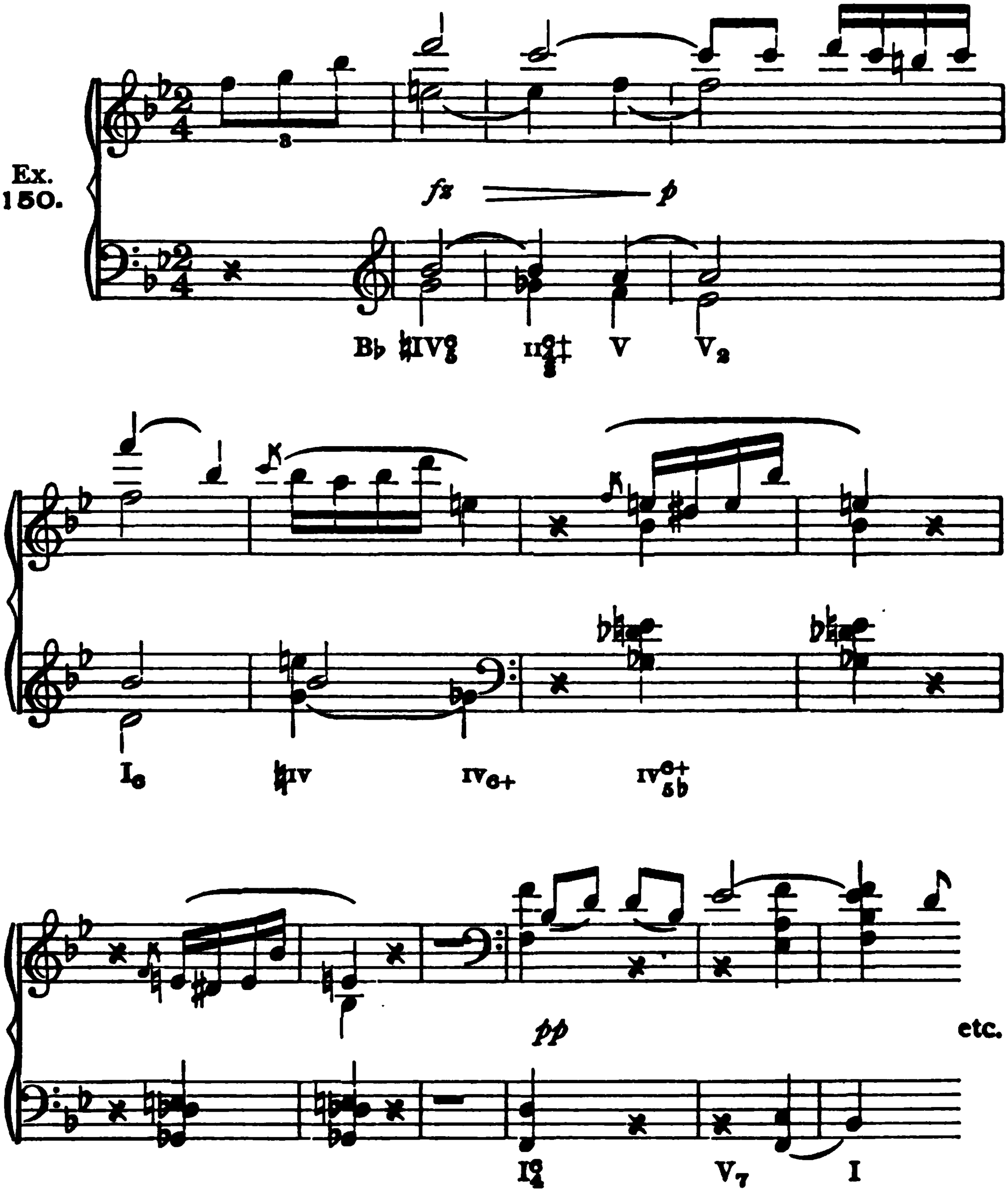
The following quotations should be carefully studied.

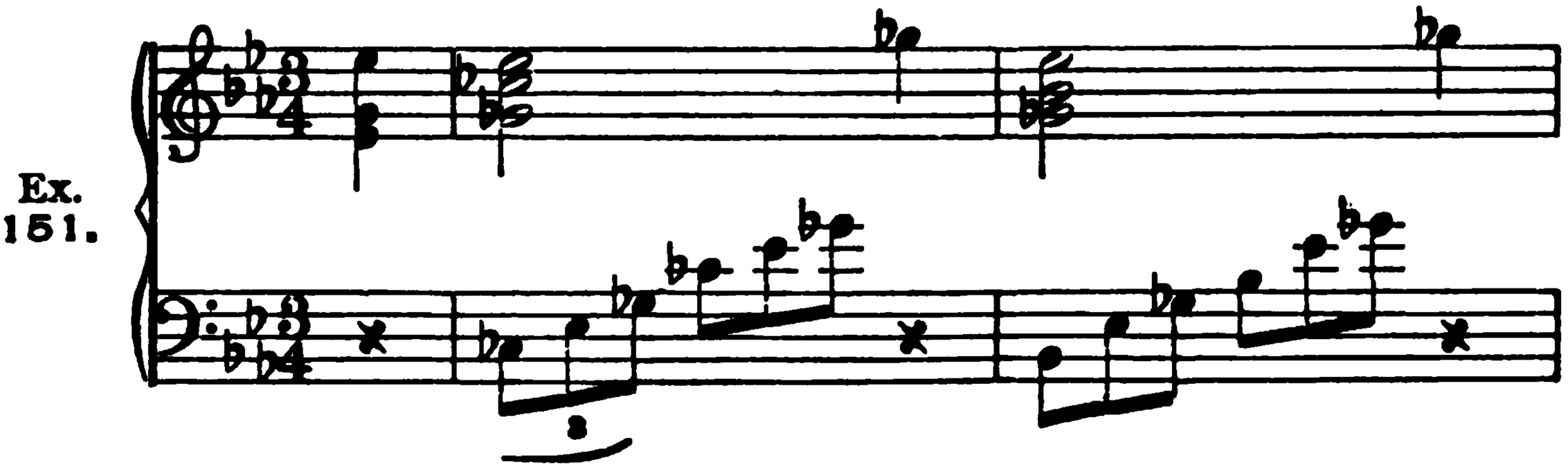
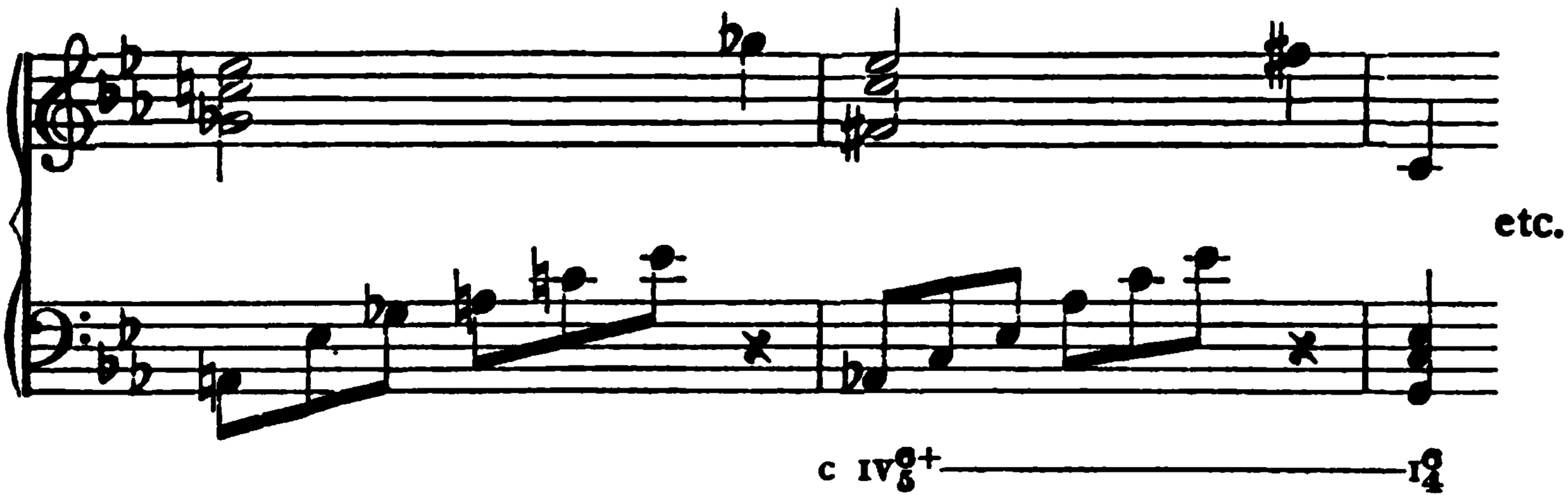
TSCHAIKOWSKY, *Invocation to Sleep.*

Ex. 149.

♭♭ IV$_{e+}$ I$^{6}_{4}$ II$^{05}_{3}$ I$_e$

* See Chapter XIII

Andante Cantabile from String Quartet. **TSCHAIKOWSKY, Op. 11.**

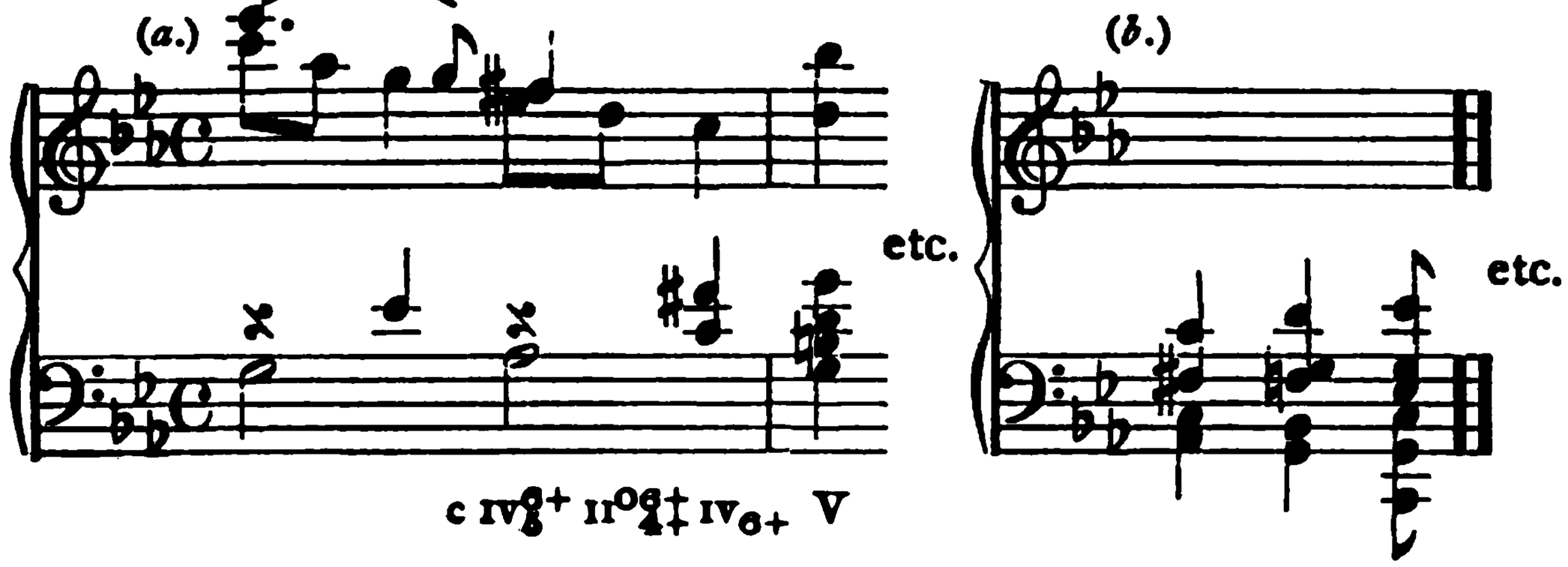
Ex. 150.

LOESCHHORN, Op. 52.

Ex. 151.



CHOPIN, C-minor Sonate.

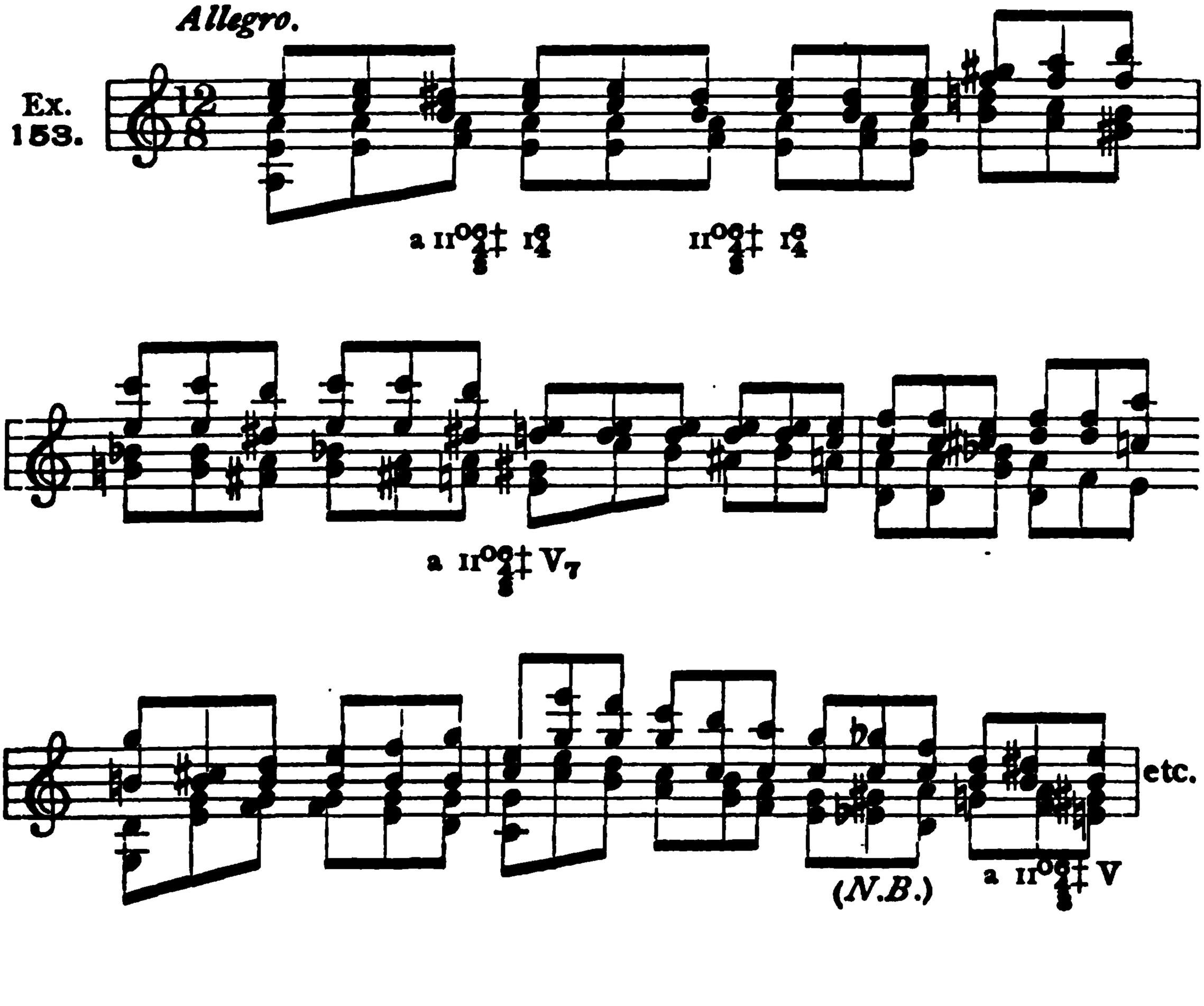
IBID.

Ex. 152.



SCHÜT, Theme and Variations, Op. 29.

Ex. 153.

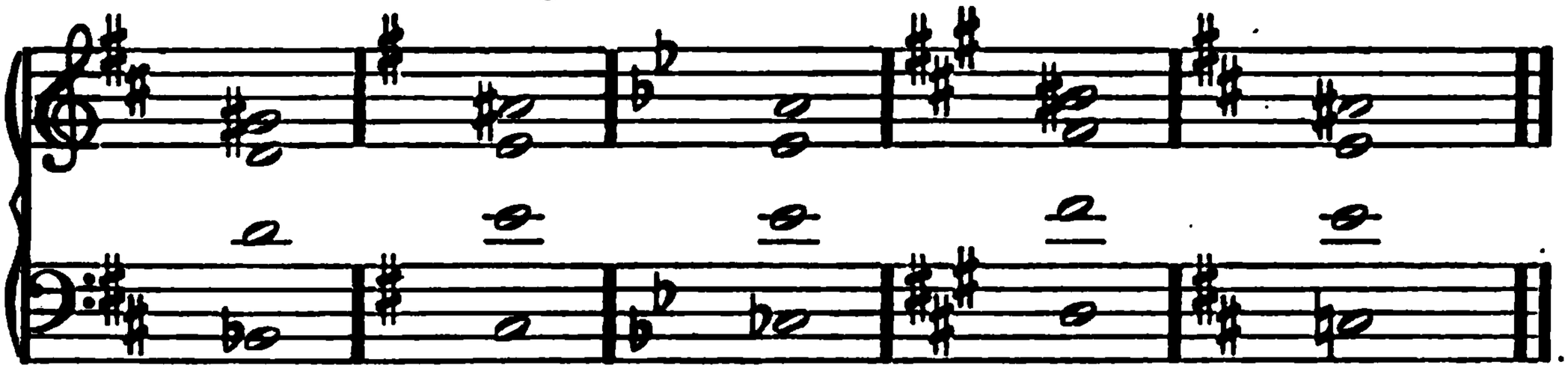


Exercises, Group 13.

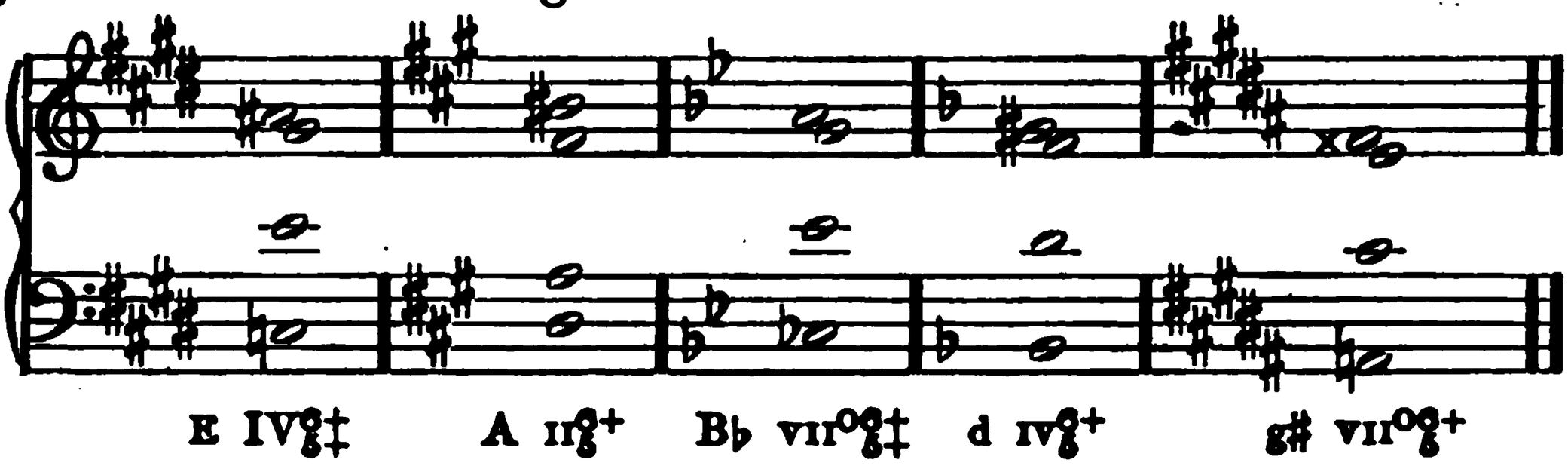
1. Notate the progressions indicated below:

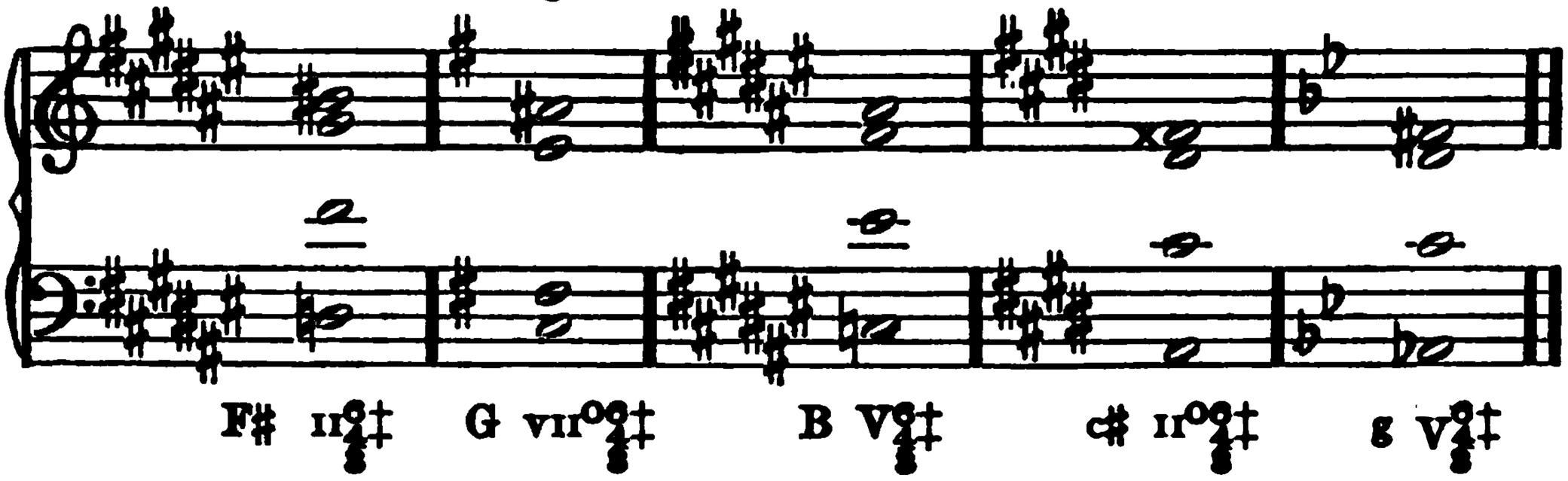
D major I_{6+}, VI, II_{6+}, V^7_{5+}, I.
B major I, IV_{6+}, V, V^8_{5+}, I.
d minor I, IV_{6+}, V, VI, VI_{6+}, V_9, I.
F major I, IV, II, II_{6+} V, $V^7_{5\flat}$, I.
b minor I, IV_{6+}, V, $V^8_{5\flat}$, I.

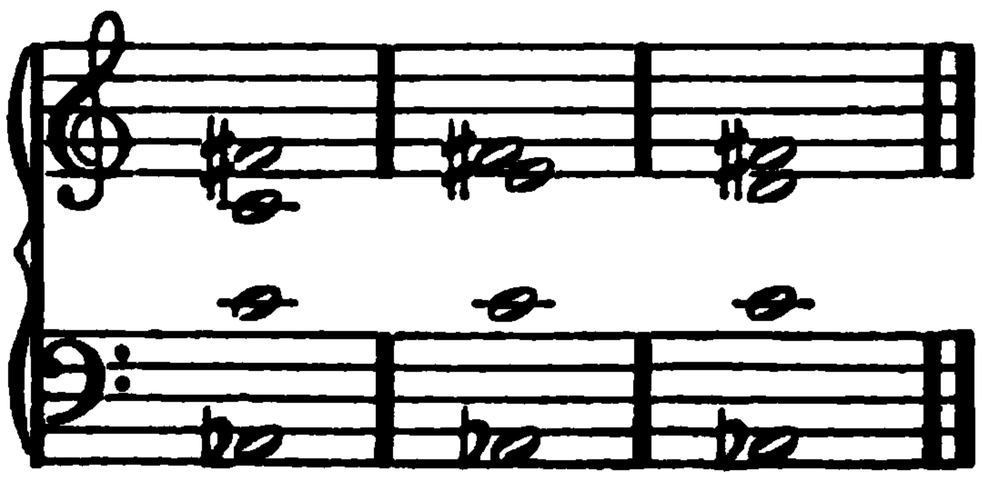
2. Resolve the following chords:



D IV_{6+} G II_{6+} B♭ VII^{o}_{6+} f♯ IV_{6+} b VII^{o}_{6+}

3. Resolve the following chords:

E $IV^8_{5\sharp}$ A II^8_{5+} B♭ $VII^{o8}_{5\sharp}$ d IV^8_{5+} g♯ VII^{o8}_{5+}

4. Resolve the following chords:

F♯ $II^6_{4\sharp}$ G $VII^{o6}_{4\sharp}$ B $V^6_{4\sharp}$ c♯ $II^{o6}_{4\sharp}$ g $V^6_{4\sharp}$

5. Resolve the following chords in all major and minor keys; first to the dominant triad and second to the tonic six-four chord:

6. Notate the progressions indicated below:

A major II$_{6+}$, I$_6$.

D major VII$^{o}_{6+}$, I.

d minor VII$^{o}_{6+}$, I.

E major II$^{6+}_{5}$, I$_6$.

G major VII$^{o6}_{5}\sharp$, I.

a minor VII$^{o6+}_{5}$, I.

B major VII$^{o6}_{4}\sharp$ I$_6$.

F major V$^{6}_{4}\sharp$, I.

e minor V$^{6}_{4}\sharp$, I.

E major V$^{8+}_{3}$, I$_6$.

b minor V$^{6}_{4}\sharp+$, I.

A major III$^{6}_{4}\sharp$, IV$_6$.

C major I$^{7b}_{5}$, IV.

F major $\flat$II$^{o}_{6}$, I$^{6}_{4}$.

g minor $\flat$II$^{o}_{6}$, V$_7$.

a minor II$^{o5}_{3}$, V.

G major $\sharp$IV, V.

b minor $\sharp$II^{o}, V.

e minor $\sharp$IV$^{7}_{5}$, V.

Additional exercises on altered chords are given in Group 14.

CHAPTER XIII.

ELEVENTH AND THIRTEENTH CHORDS AND MODERNITIES.

Theorists of the past generation admitted no such chord formation as that of a ninth. The factor of a ninth always entered as a suspension or other non-chordal tone and was analyzed as such. To-day, ninth chords are freely used without preparation and take an important place in the musician's vocabulary.

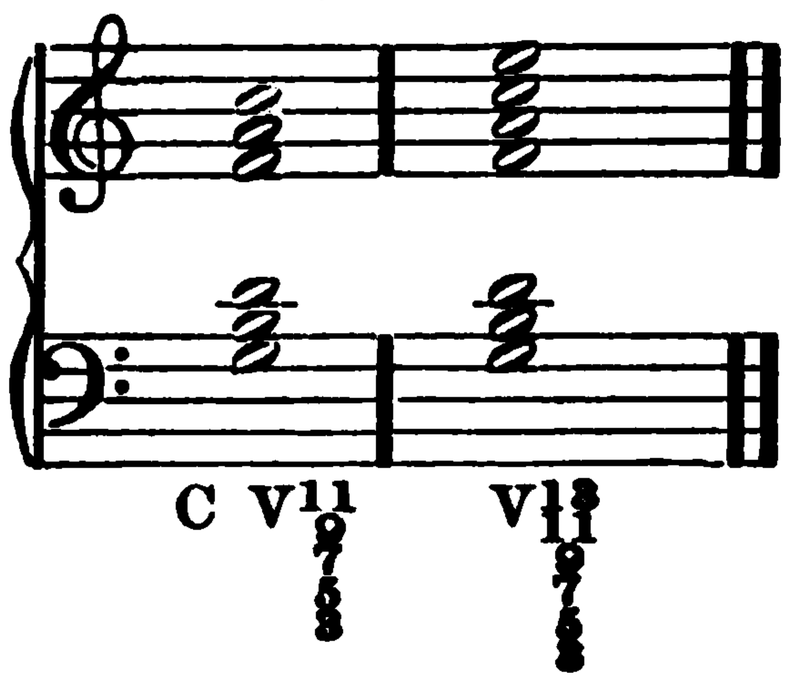
Some theorists of the present generation admit of no such chord formations as those of the eleventh and thirteenth. Nevertheless, composers are using these intervals with growing independence. The so-called ultra modern music of to-day is opening new possibilities in harmonic structure, and only time can tell whether or not the chordal radicalism of this music will become established. In spite of the criticism of the conservative, the best of the "ultra" finds its way to the concert halls, and, in many cases, to the hearts of the audience.

The identity of chords of the elventh and thirteenth are not, as yet, well enough established to be wholly successful in four voice writing because of the fact that too many chord factors must be omitted.

● Because of the immaturity of these chord formations, it is not advisable for the student to attempt to use them at the present time. They are chords which only the skilled craftsman should use.

The formation of the dominant eleventh and thirteenth chord follows:

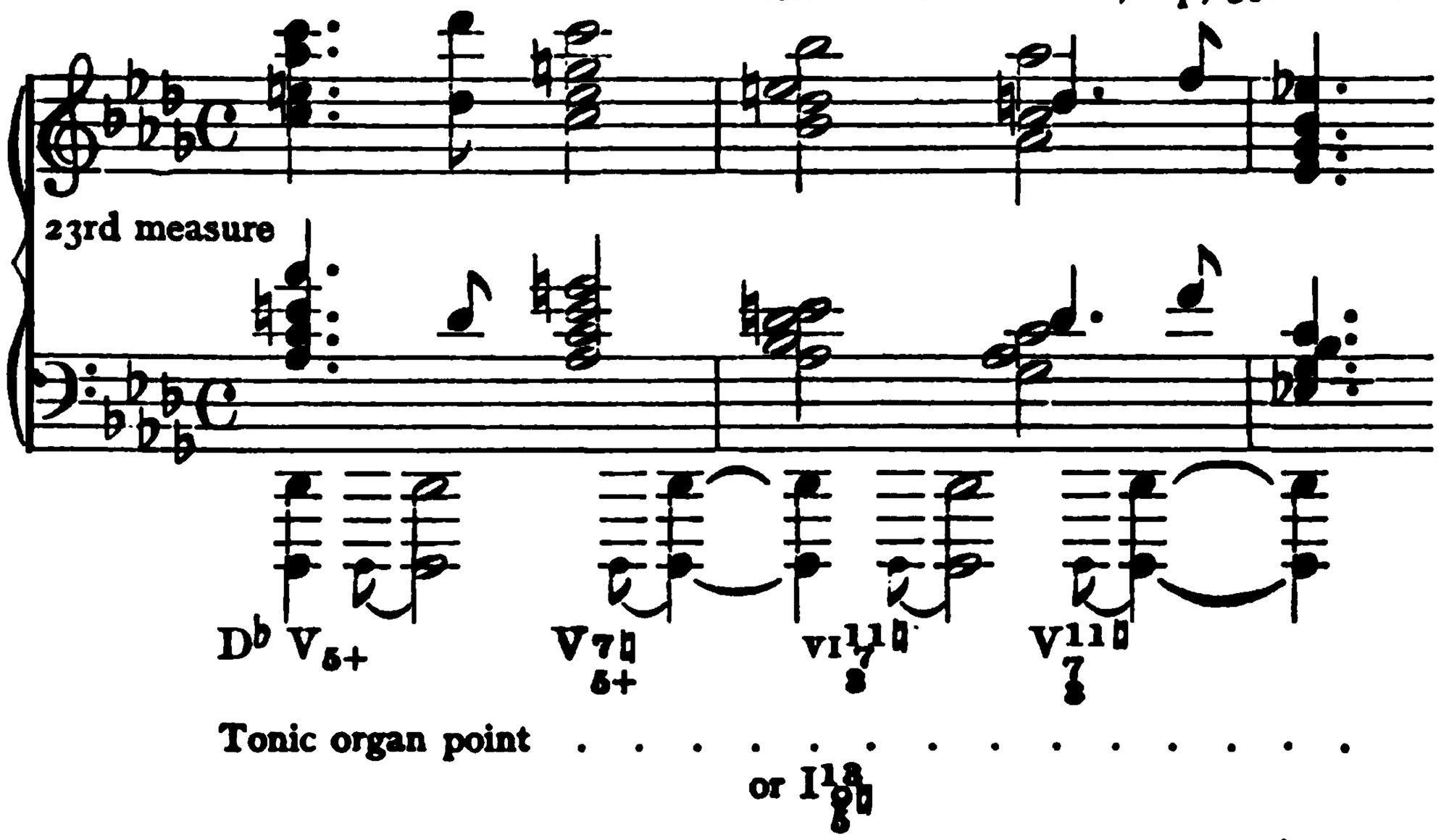
Ex. 154.



Quotations from the most ultra of the modern music have been intentionally avoided. Those which follow show examples which the average modern ear readily grasps.

EDWARD MACDOWELL, Op, 55, No. 1.*

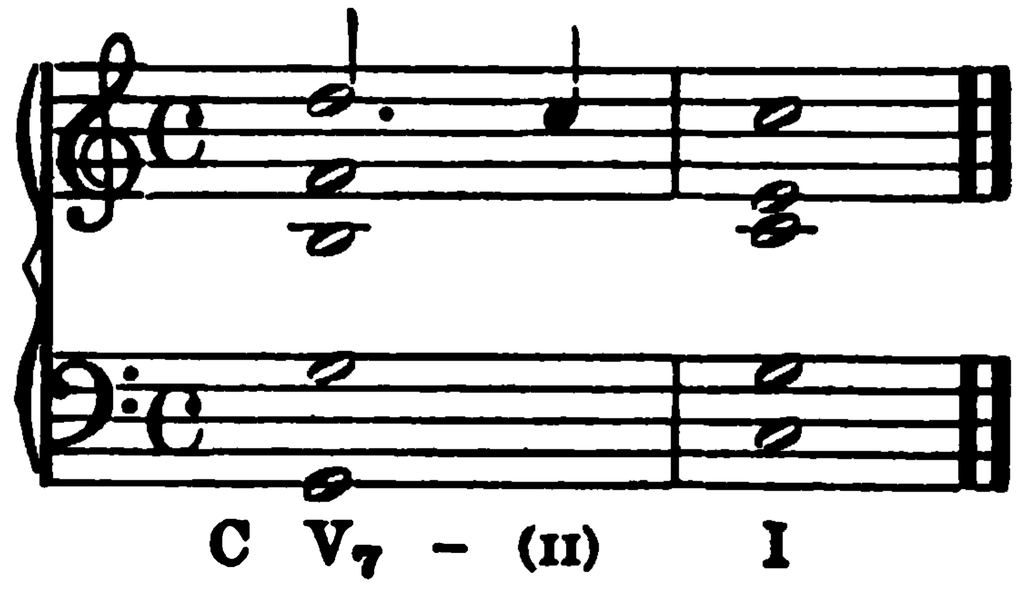
Ex. 155.



In example 155, factor eleven in the chord figured VI$^{11}_{7}$ may be analyzed as a suspension 4–3. But the "3" in the above suspension becomes an eleventh in the following dominant chord! The progressions follow none of the academic rules for suspensions or other non-chordal tones. Obviously, these are eleventh chords.

Anticipations often result in an eleventh chord formation, for example:

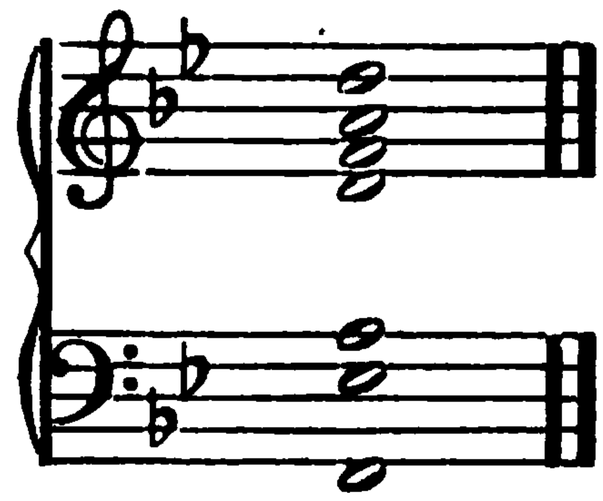
Ex. 156.



*Published by Arthur P. Schmidt (copyright).

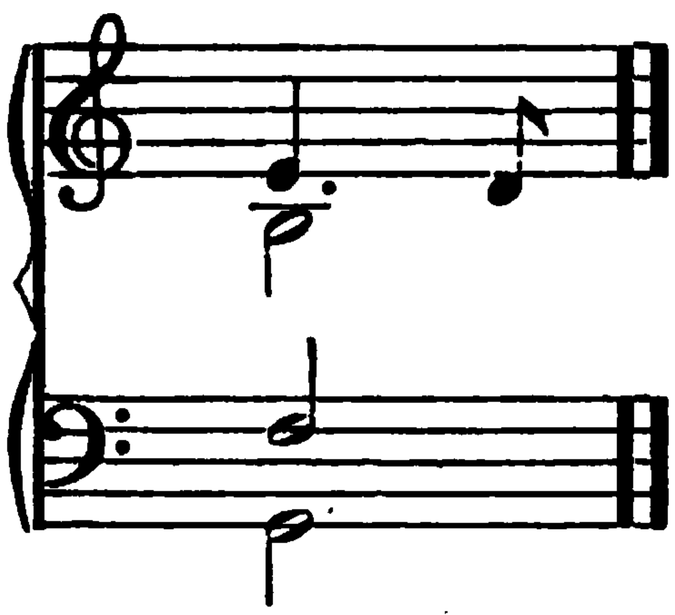
Godowsky in his free arrangement of Rameau's Sarabande uses the above anticipation in the penultimate measure with considerable suggestion of a dominant eleventh chord. Similarly, an anticipation of the *mediant* in progression V–I results in a dominant 13th chord formation.

Schytte (op. 58, no. 6) uses the following thirteenth chord formation:

Ex. 157.

$B^{\flat}$ V^{13}_{7}

This is followed by the dominant seventh chord which resolves to the tonic triad. Many theorists would analyze this chord as a mediant ninth chord in the first inversion, but the ear accepts the *d* more readily as an overtone. A tone such as this which is figured "13" may also be analyzed as a neighboring or other non-chordal tone. In the Schytte number, the *d* has considerable chordal importance and will doubtless be unhesitatingly analyzed as a dominant chord factor in the near future.

Ollivier in his *Phantasie* on Wagner's *Die Meistersinger* uses an *appoggiatura* with considerable chordal significance, thus:

Ex. 158.

C V^{13}_{7} – –

This chord is preceded by the tonic six-four and resolves to the tonic triad in root position.

Modernities.

Modernities in musical composition differ so radically from the two established systems (polyphony and homophony) that it is apparent that an entirely new theory must ensue. Many of the progressions,

chord formations and groupings of the modern compositions cannot be accounted for by the rules of polyphony or homophony and in many other cases the rules are broken. A glance at a page in a score by Richard Strauss, Ravel, Sibelius, Elgar, Schönberg, Cyril Scott, or Debussy and a host of others, shows absolute disregard for the time honored "rules" of the academicians. Adverse criticism of modernists is, by far, the more common, but this is simply history repeating itself. Bach, Beethoven, Brahms, and Wagner, each in his time, suffered similarly but not, however, to the glorification of their critics.

The science of physics as well as the growing freedom in the use of dissonant chords prove that it is our ears, not Nature, which dictate our approval or disapproval of many acoustical phenomena.

Consecutive fifths have been the bugbear of theorists since the formulation of rules of counterpoint, and while much of the condemnation is justified under the diatonic system, the newer methods, where tonality is more or less vague, justify and even demand such consecutives. Fifths have been used, and used effectively, by masters of the diatonic school, including Beethoven, and are now being used freely and effectively by composers who are infinitely greater geniuses and thinkers than their critics.

Augmented steps and skips are also forbidden by academicians but are now being freely used by composers. The principal objection to such melodic progressions is founded upon the fact that an augmented interval is a difficult interval to sing, and it is, therefore, a logical restriction for vocal composition.

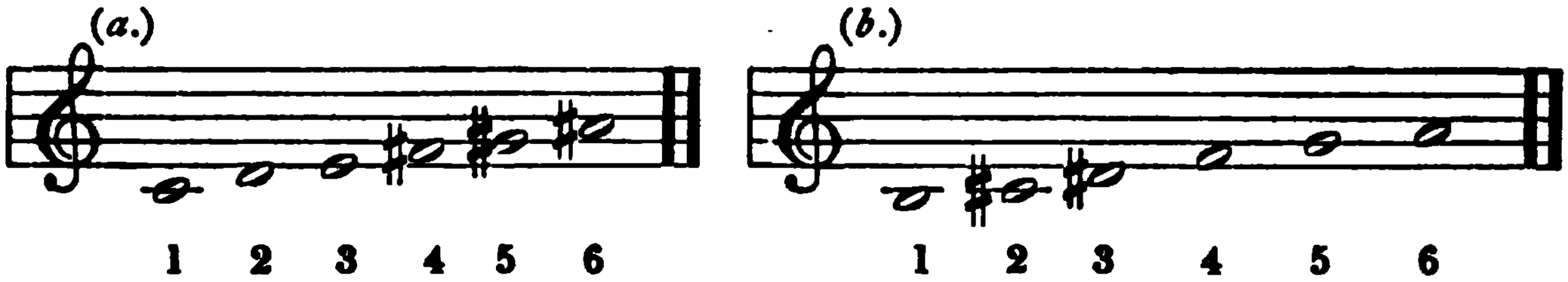
Unresolved dissonances are frequent in modern music and the treatment of dissonances is very free. Cross relation is also ignored to a great extent.

Counterpoint is a theory of "horizontal" composition restricted, however, by certain "vertical" considerations. Harmony is a theory of vertical composition comprising certain horizontal considerations. The more serious compositions of the homophonic school draw considerably upon the principles and concepts of the contrapuntal school. The ultra modern takes a new road, and while drawing upon both the polyphonic and homophonic concepts, it travels new paths. Theorizing at the present time upon modernities is, at best, hazardous. The few theories which are herein set forth are not intended to furnish rules or principles of ultra modern technique, but are offered only as a possible solution and as seed for thought.

Many modernities result from an equal division of the octave, the superposing of intervals other than our usual thirds in forming chords, and from horizontal concepts other than those of the older contrapuntal school.

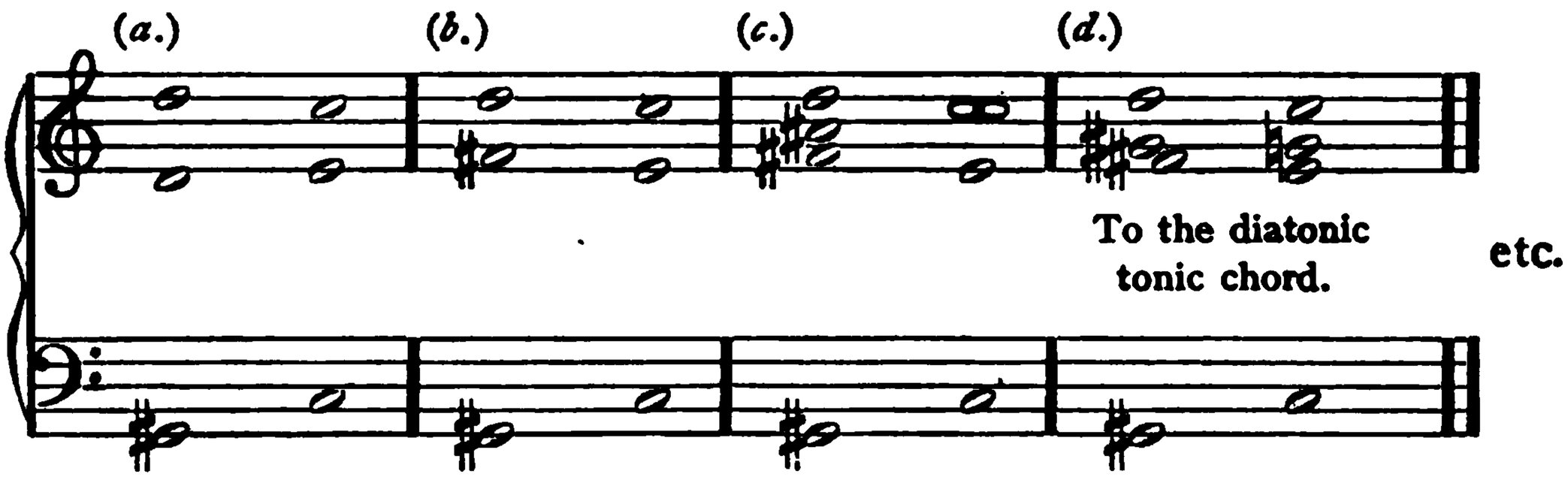
The whole-tone scale is popular with our modernists:

Ex. 159.



The two above scales combined give us the chromatic scale. Notice the tonal ambiguity* — any of the six tones in either of the above scales may be a tonic by proper manipulation hence, the modulatory possibilities are manifold. Equal division of the octave in any manner always offers modulatory opportunities.

Several new chords may result from the whole-tone scale. For example, suppose a composition is in the key of C with a frequent use of the whole-tone scale, chords founded upon the g-sharp may serve in the place of a diatonic dominant:†

Ex. 160.

The above example shows alterations of diatonic chords according to the dictates of the whole-tone scale and will sound "impure" to all who have heard little or no modern music and to those who have heard much modern music but have what we may term "conservative" ears. Many ears will supply the perfect fifth in the tonic chords in (a), (b) and (c) of the above example.

Great difficulties in reading present themselves in the prolonged use of the whole-tone scale which is also true of many other modernities.

*The tonal center is frequently maintained by the use of such devices as a pedal and frequent return to the diatonic system.

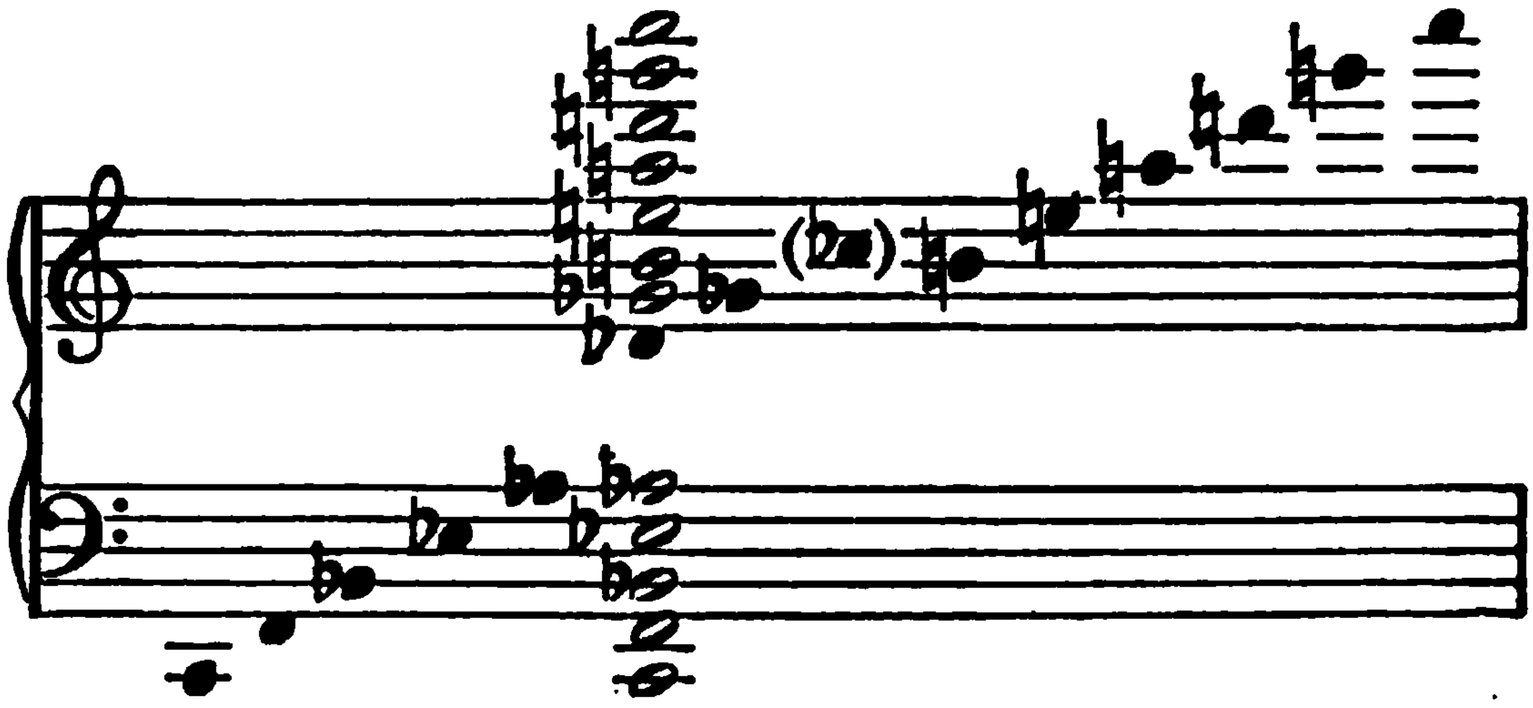
†The terms tonic, dominant, subdominant, etc., will probably be discarded in applying theory to modernities.

This would seem to argue that some new form of notation might be advisable. Many worthy compositions by unknown composers have in all probability been refused by publishers because of these difficulties.*

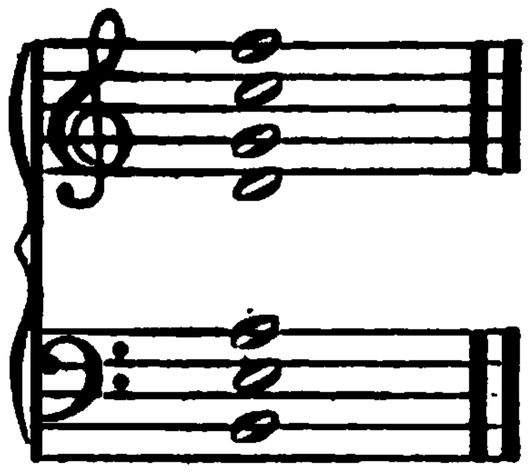
A great many other scales are used, some of which are similar to the old modal scales. The major diatonic scale with flat sixth is, perhaps, the most frequent but the least revolutionary. The same with raised fourth is also frequent.

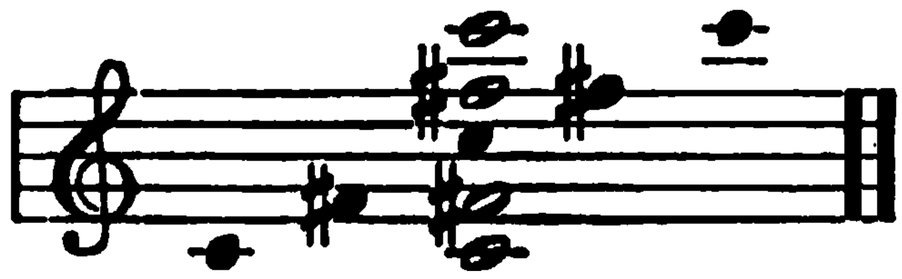
Superposition of intervals other than of a third and equal division of the octave offer several new chord formations other than those derived from the whole-tone scale. In our present harmonic system, we have three diatonic scale chords which divide the octave evenly, namely: the diminished triad (II° and VII°), the diminished seventh chord (VII°_{7}, minor mode) and the augmented triad (III^{+}). The formation of the major and minor scales justifies these chords, not "Nature's Generator."† Undoubtedly new scale formations will justify many new chord formations.

Superposition of perfect 4ths: Ex. 161.



For an example of superposition of perfect fourths see Rebikoff *Feuille d'Album:*

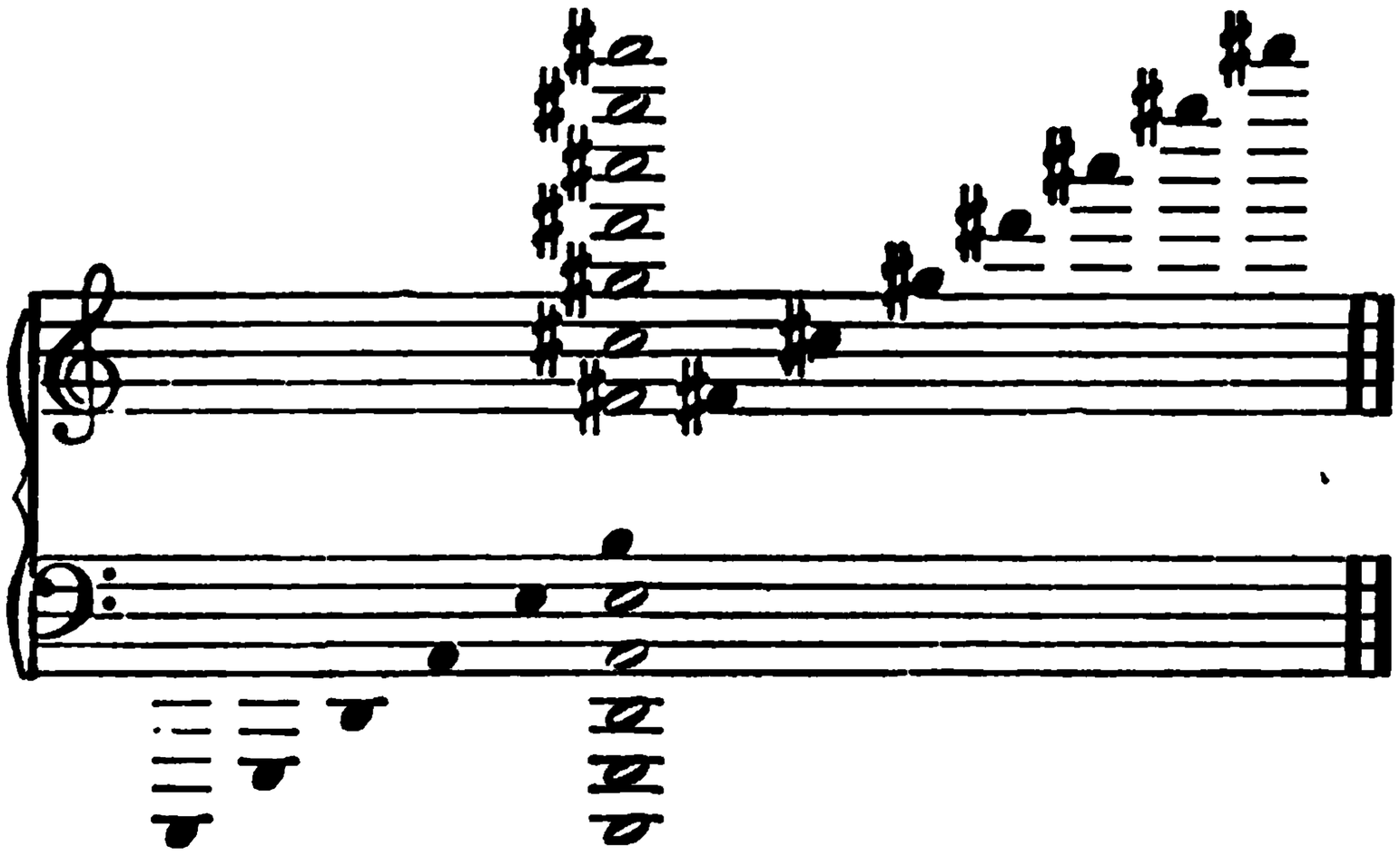


Superposition of augmented fourths: Ex. 162.

*The author has devised a notation which would offer fewer difficulties in the way of reading but it differs as radically from the present system as the present system does from the Gregorian. For this reason its advocation would be useless. We can hope, however, for a solution more compatible with our present system.

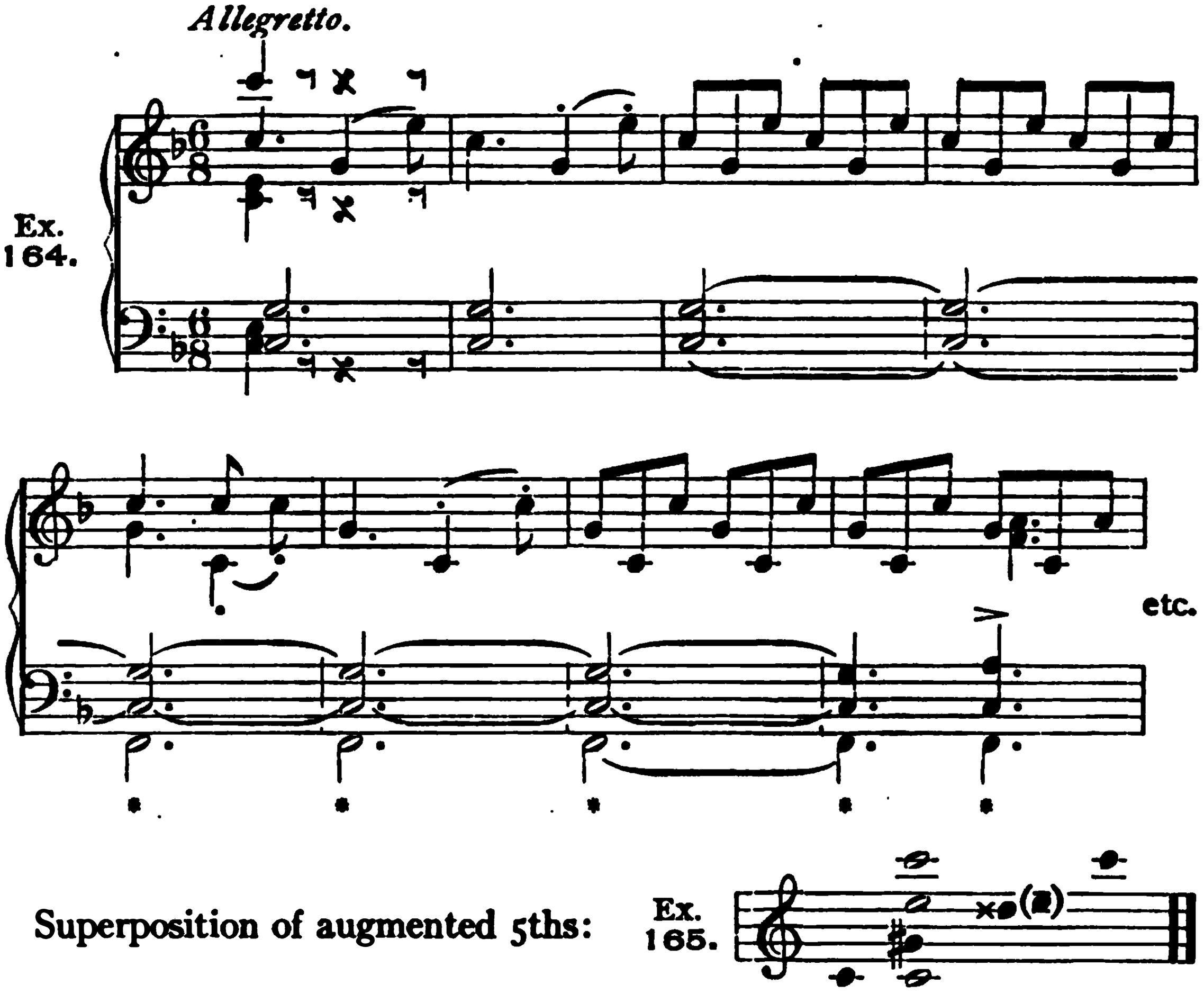
† Similarly, the minor triad is justified. Our ears no longer demand the *Tierce de picardie*.

This chord is like the diminished triad without its third.

Superposition of perfect 5ths:

Ex. 163.

Beethoven used them in the Sixth Symphony:

Ex. 164.



Superposition of augmented 5ths:

Ex. 165.

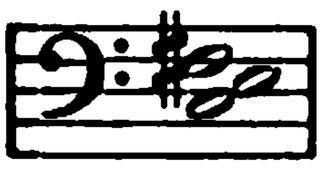
This chord is like the augmented triad.

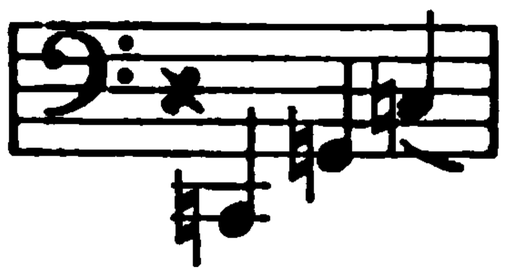
Chords of the major seventh are frequent even in an inversion which gives the clash of a minor second. Beethoven and others of the diatonic school have used the minor second, but the modernists use it with much

*The F can be analyzed as a tonic organ point. Even so, it breaks an academic rule by entering unprepared.

more freedom. Major seconds are also very freely used and comparatively long passages in seconds will be found in modern scores.

Many of the new chords result more or less accidentally through horizontal conceptions. Two or more melodic lines may occur simultaneously and in well-handled progressions of this kind, the ear willingly accepts almost any vertical resultant. Note how easily the ear accepts the vertical resultants of scales, diatonic or chromatic, played in contrary motion.

Different keys are sometimes combined, which practice is the most radical innovation of the modernists. Such a concurrence of different keys is to be found in Strauss' *Thus Spake Zarathustra.* At the sixth measure from the end the bassoons sound the following chord: 

while the cellos and basses mark the rhythm as follows:

In the fifth and fourth measures from the end, the high strings and high wood wind sound the major chord of b-natural in their high registers and the low strings sound low c-natural. In the third measure from the end, the b-natural chord is again heard, this time without the c-natural in the bass. The last two measures consist of c-natural alone in cellos and basses. The effect is unique as it should be when treating such a unique program as Strauss has chosen for this tone poem. Very little clash is noticeable. This is no doubt due to the fact that the unrelated elements are isolated one from the other.

PART II.

CHAPTER XIV.

MODULATION AND TRANSITION.

The object of the preceding chapters has been to present the manner in which simple melodies may be harmonized to which end all the chord formations together with their logical progressions have been given. The presentation of the material has been a "monotonic" one characterized by simple phrase balance and period construction. Obviously, the exercises have resulted in tonal and constructive monotony. Part II deals with more complex structure as well as tonal variety. We enter, here, upon actual composition and although melodies are given for harmonization, the student should compose melodies of his own, the structure of which should be decided by the particular form under consideration.

A digression to a new tonality is called *modulation* or *transition*. A change of key in which a new key is established for architectonic purposes constitutes a modulation. A transitory change of key which exists to add variety and does not exist for architectonic purposes constitutes a transition.*

The most common digressions are to the dominant and subdominant keys and to the mediant and submediant (superdominant) keys.† Digression to the two former keys is usually made in the same mode as the original key whereas digression to the latter two keys is usually made in the opposite mode from that of the original key.

The simplest modulation or transition is to a key requiring the addition or subtraction of but one sharp or flat. Such keys are called *attendant keys*. Some theorists name such a digression a *natural modulation;* a digression to a non-attendant key is called an *extraneous modulation*.

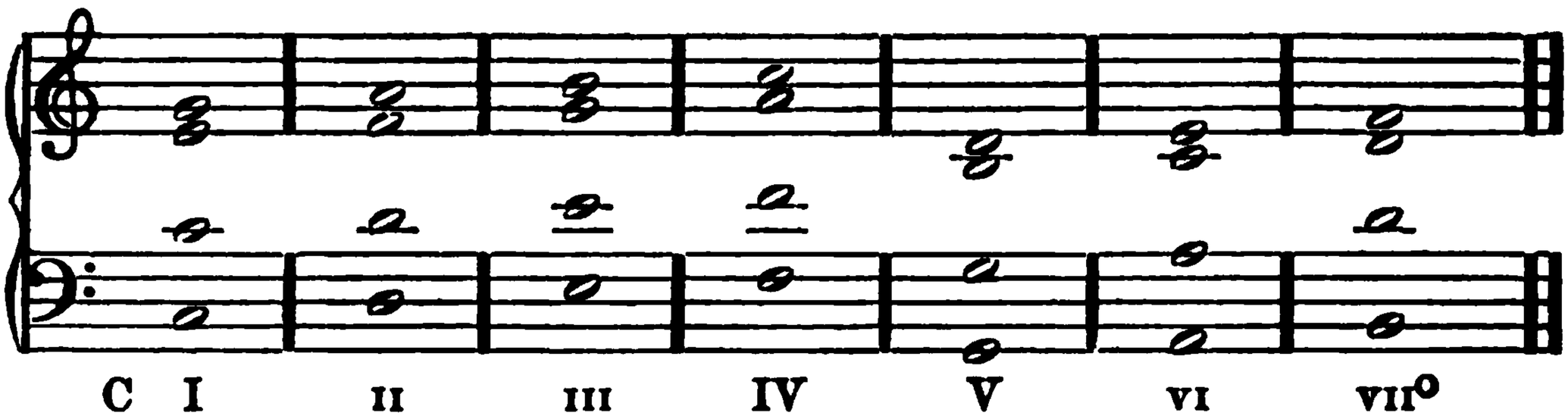
*The author has chosen these specific definitions of modulation and transition to facilitate the presentation of the subject and to differentiate the two purposes for which changes of tonality are made. The two terms have become extremely ambiguous among theorists. One theorist has defined *modulation* as a change of mode (for example: C major to c minor) and *transition* as a change of tonality. Another theorist has stated that a change of mode does not effect modulation. And one might add another contradiction by stating that a change of mode is neither a modulation nor a transition because no change of key takes place.

† It is interesting to note that in the eighty-one works in sonata form of Beethoven, the architectonic modulation to dominant occurs only three times, to subdominant nineteen times, and thirty times to the submediant.

A change of key is effected by the introduction of the dominant harmony of the new key. To establish a remote key, the dominant seventh or ninth or the subtonic seventh chord is frequently necessary. The more remote the new key, the more technique is necessary to introduce the new dominant harmony in an unforced manner. The tonic six-four, the subdominant triad, the supertonic chords, and the augmented sixth chords of the subdominant family of the new key are all valuable in introducing the new dominant. The modulating chord (a dominant) is not necessary when a new phrase or period is in an attendant key. (See Ex. 181, page 110; also Ex. 182, page 112, together with the paragraph of text which follows the latter example.)

The following example shows all the triads in C major with compound figuring:

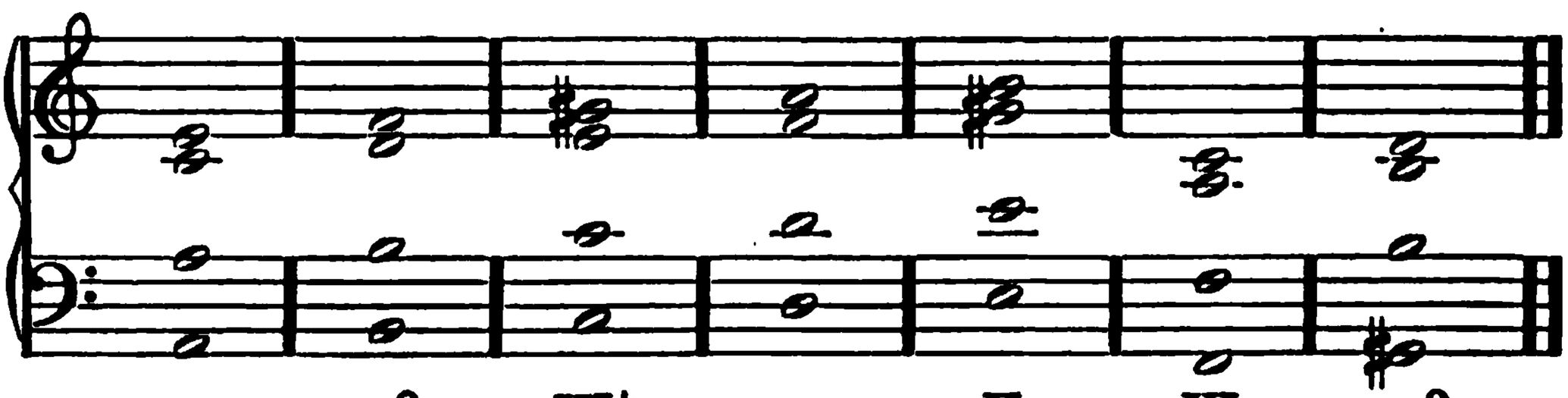
Ex. 166.



C I	II	III	IV	V	VI	VII°
G IV	F VI	G VI	F I	G I	F III	a II°
F V	B♭ III	D II	B♭ V	D IV	G II	c VII°
f V	d I	e I	a VI	b VI	a I	
e VI	a IV	b IV	b♭ V	c V	e IV	

A similar example in minor follows:

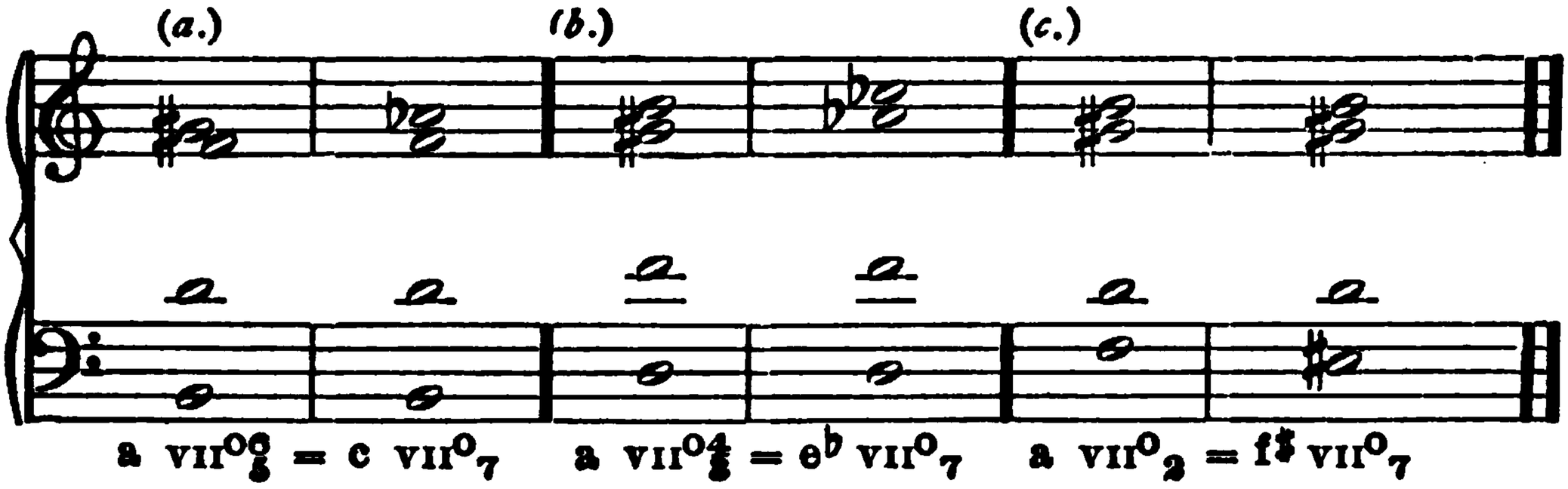
Ex. 167.



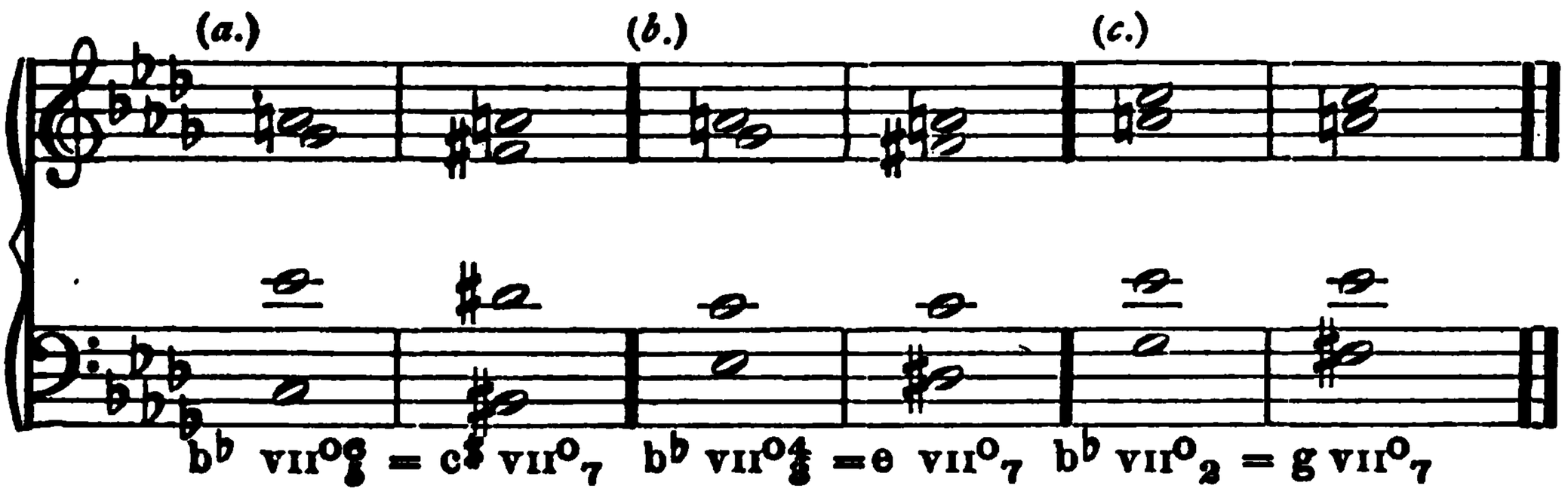
a I	II°	III+	IV	V	VI	VII°
e IV	c VII°		d I	g VI	b♭ V	f♯ II°
C VI	C VII°		C II	E I	F I	A VII°
G II			F VI	B IV	C IV	
F III			B♭ III	A V	B♭ V	

Remember that the mediant and superdominant seventh chords are constructed like the supertonic seventh chord and may become supertonic chords. The Italian and German Sixth Chords are analogous, enharmonically, in construction to the dominant seventh and may become dominant chords, although considerable skill is necessary to handle these in this manner successfully.

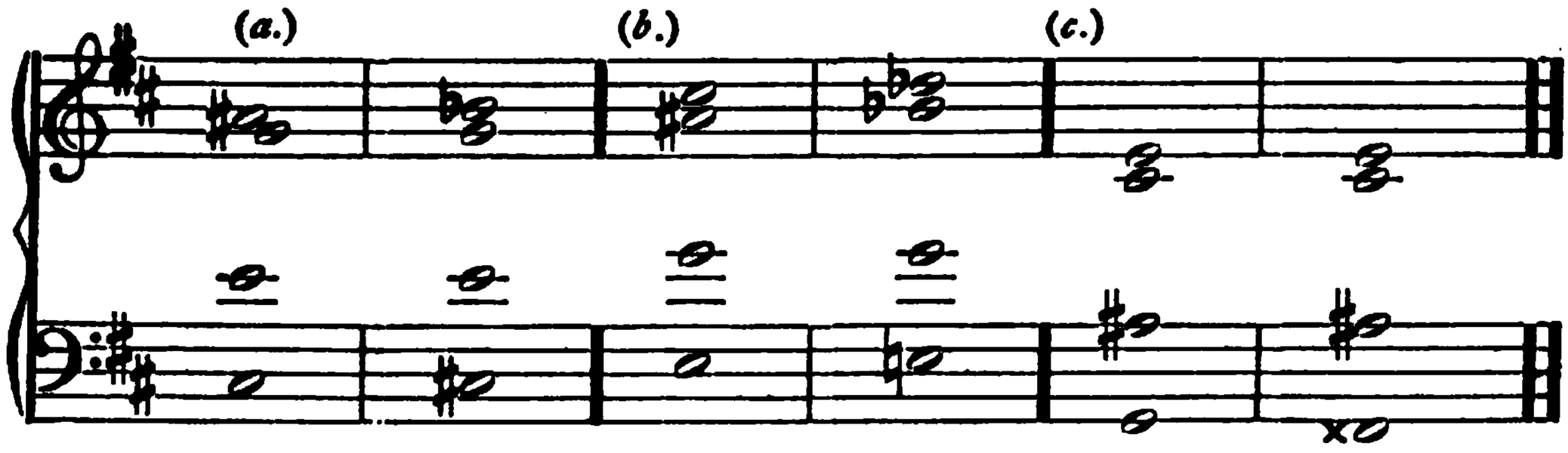
The diminished seventh chord offers rich resources for modulatory purposes. Because of the fact that the augmented second is analogous in sound to the minor third, any diminished seventh chord is enharmonically changeable into three other keys:

Ex. 168.

a $\text{VII}^{\circ}{}^{6}_{5}$ = c $\text{VII}^{\circ}{}_{7}$ a $\text{VII}^{\circ}{}^{4}_{3}$ = e♭ $\text{VII}^{\circ}{}_{7}$ a $\text{VII}^{\circ}{}_{2}$ = f♯ $\text{VII}^{\circ}{}_{7}$

Ex. 169.



b♭ $\text{VII}^{\circ}{}^{6}_{5}$ = c♯ $\text{VII}^{\circ}{}_{7}$ b♭ $\text{VII}^{\circ}{}^{4}_{3}$ = e $\text{VII}^{\circ}{}_{7}$ b♭ $\text{VII}^{\circ}{}_{2}$ = g $\text{VII}^{\circ}{}_{7}$

Ex. 170.

b $\text{VII}^{\circ}{}^{6}_{5}$ = d $\text{VII}^{\circ}{}_{7}$ b $\text{VII}^{\circ}{}^{4}_{3}$ = f $\text{VII}^{\circ}{}_{7}$ b $\text{VII}^{\circ}{}_{2}$ = g♯ $\text{VII}^{\circ}{}_{7}$

All the diminished seventh chords are shown in the above examples.

The alteration of factor three in major and minor chords frequently occurs for modulatory purposes. By this alteration, major triads may become minor and *vice versa*, dominant seventh chords may become supertonic seventh chords and *vice versa*.

It is frequently desirable when modulating, especially to a remote key, to introduce the salient tones of the new key (the most conspicuous of which is the leading tone) in an inconspicuous place. It is even advisable at times to go beyond the objective key.

Many methods have modulatory formulæ, but with the contributions of Beethoven to the evolution of music, such formulæ became antiquated,

although they serve as a mechanical guide. The preceding abstract statements serve a similar purpose and are not likely to bind the student's originality as much as formulæ usually do.

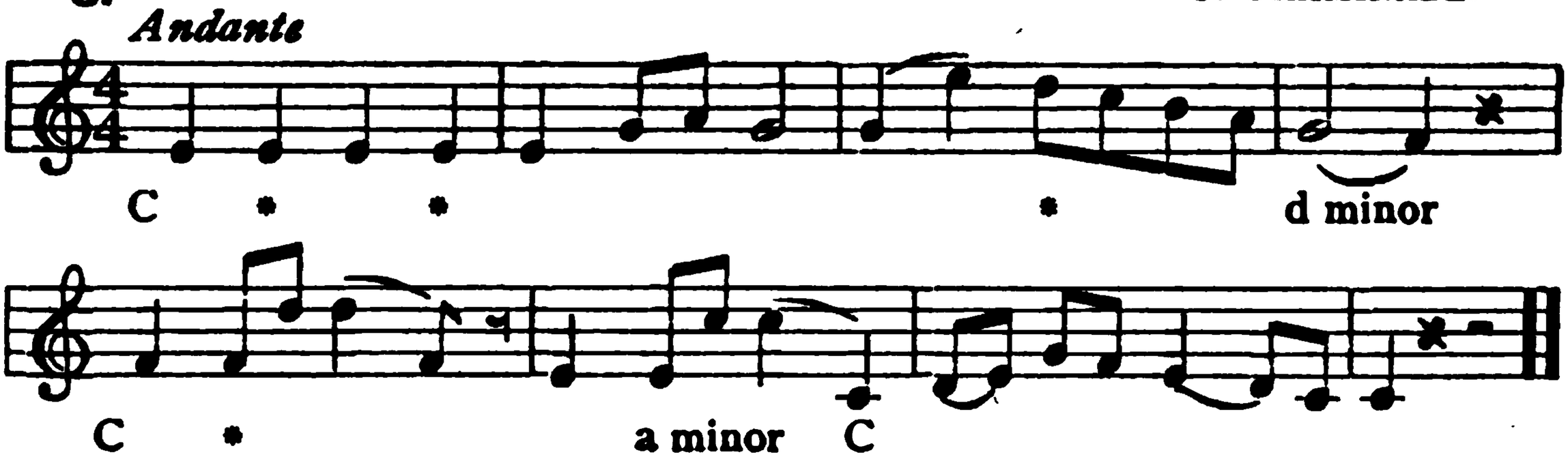
Exercises, Group 14.

1. Modulate from C to G; C to F; C to a; C to e; a to e; a to d; a to C, and a to F. This work may be done, at first, by writing the bass part and then filling in the upper voices. Secondly, a melody as interesting as possible should be written for each modulation and then harmonized.

2. The following melody should be harmonized with simple chords; transitions are to be made where indicated. Altered chords may be used sparingly; the star indicates where altered chords may be effectively used. Some of the notes should be treated as non-chordal.

Tito Mattei.

3. C. CHAMINADE.



CHAPTER XV.

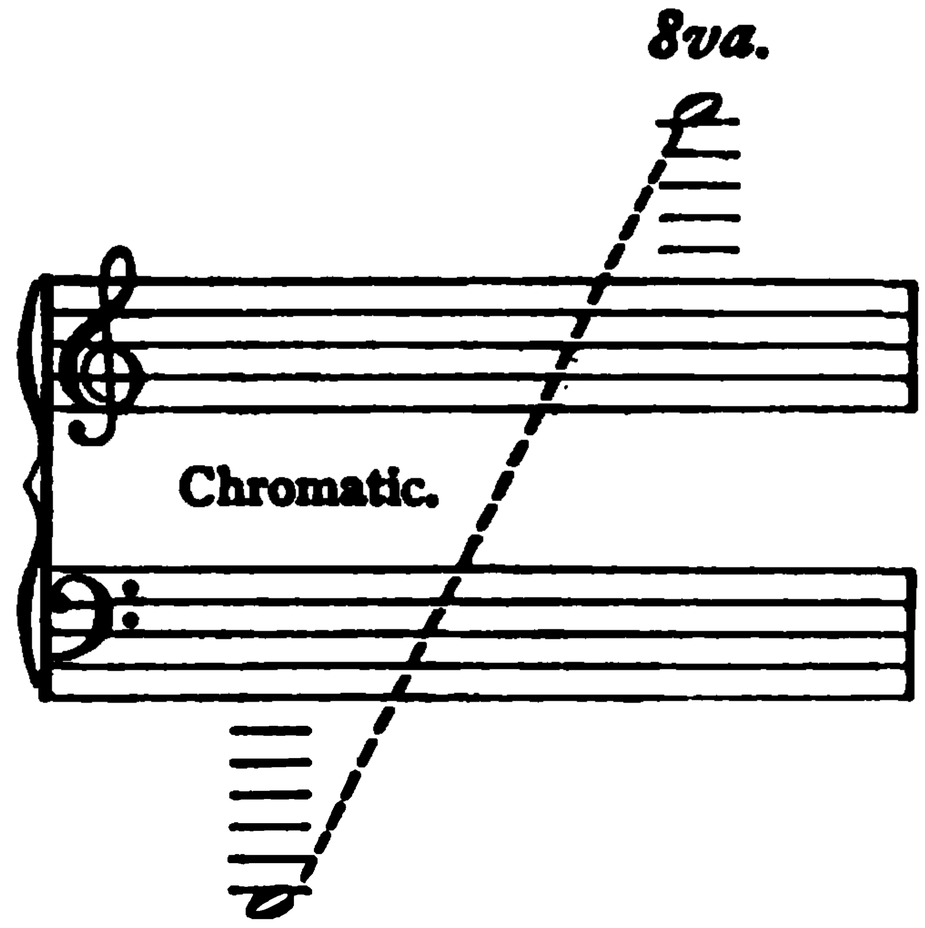
THE VARIOUS STYLES OF WRITING.

The student of free composition will be desirous of writing in the particular style in which he is most interested. The best results in any one style are obtained by some knowledge of all the styles, and it is therefore desirable to be well informed upon the possibilities of the human voice, the pianoforte, and the string quartet. The knowledge of orchestration is an invaluable aid to composition in any style, but for an adequate knowledge of orchestration, a text devoted to this subject is necessary as well as personal contact with orchestras in the capacity of listener or performer. One of the best text books upon orchestration is Professor H. Kling's *Modern Orchestration and Instrumentation.** The above text book is also valuable to those interested in the wood wind choir, the brass choir, and the military band.

THE PIANOFORTE.

The tonal compass of the pianoforte follows:

Ex. 171.

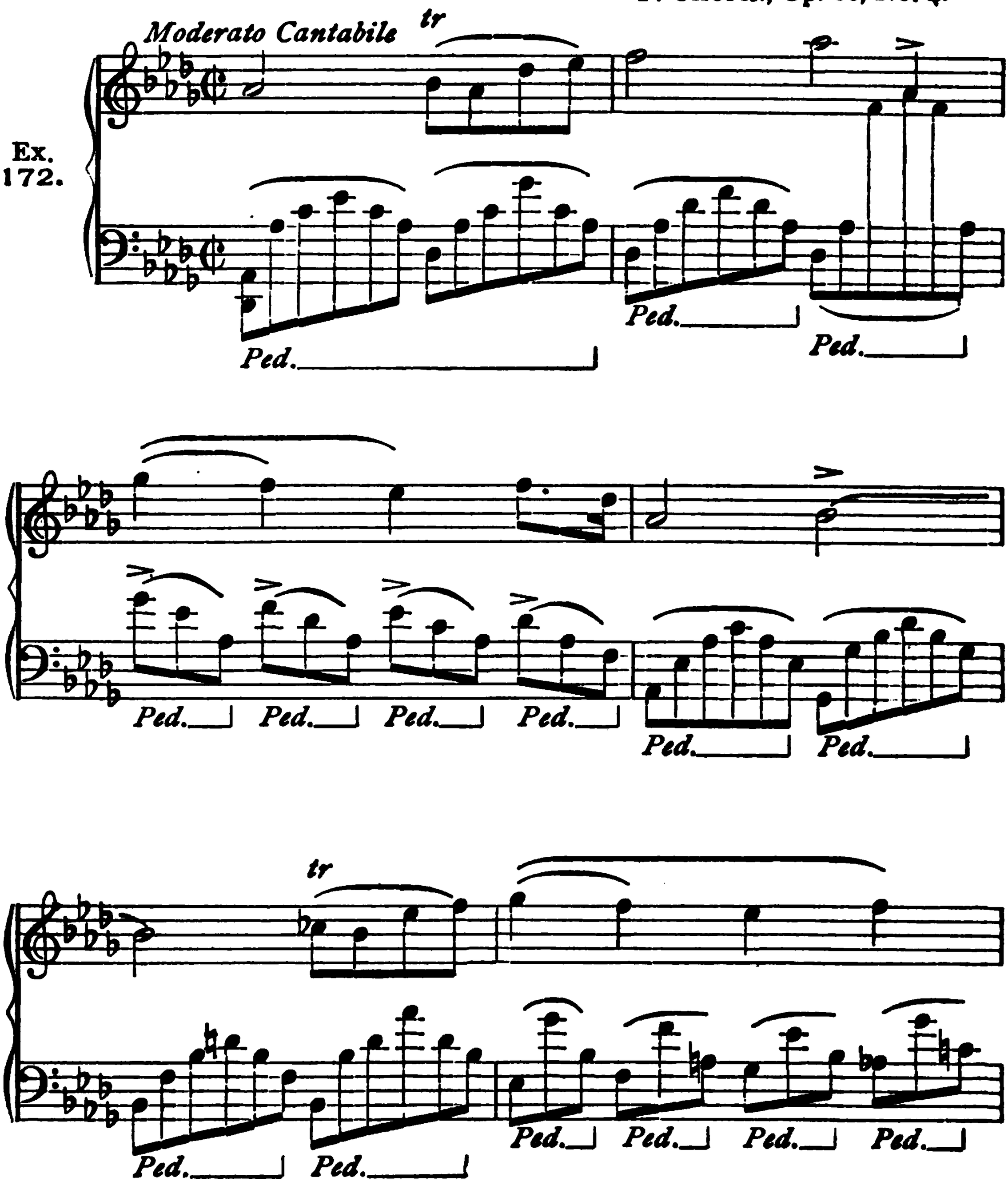
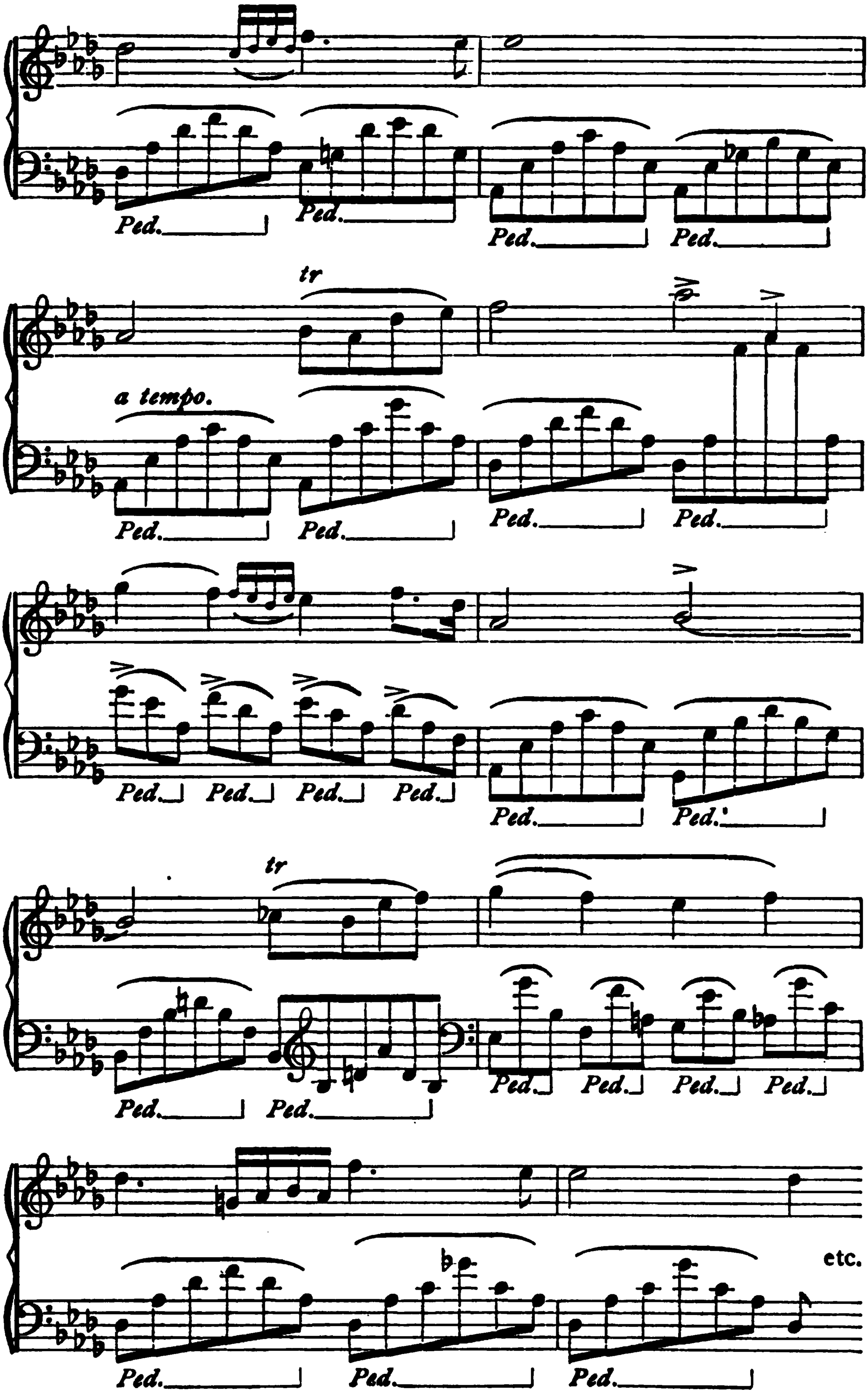


* English translation published by Carl Fischer, New York.

The piano lends itself to a great variety of styles of writing. The voice parts are not well individualized and care must therefore be taken to write for this instrument with the individual voice parts in mind. Parallel fifths, cross relations, augmented leaps, incorrectly resolved dissonant chords, etc., are often difficult to detect upon the pianoforte when heard.

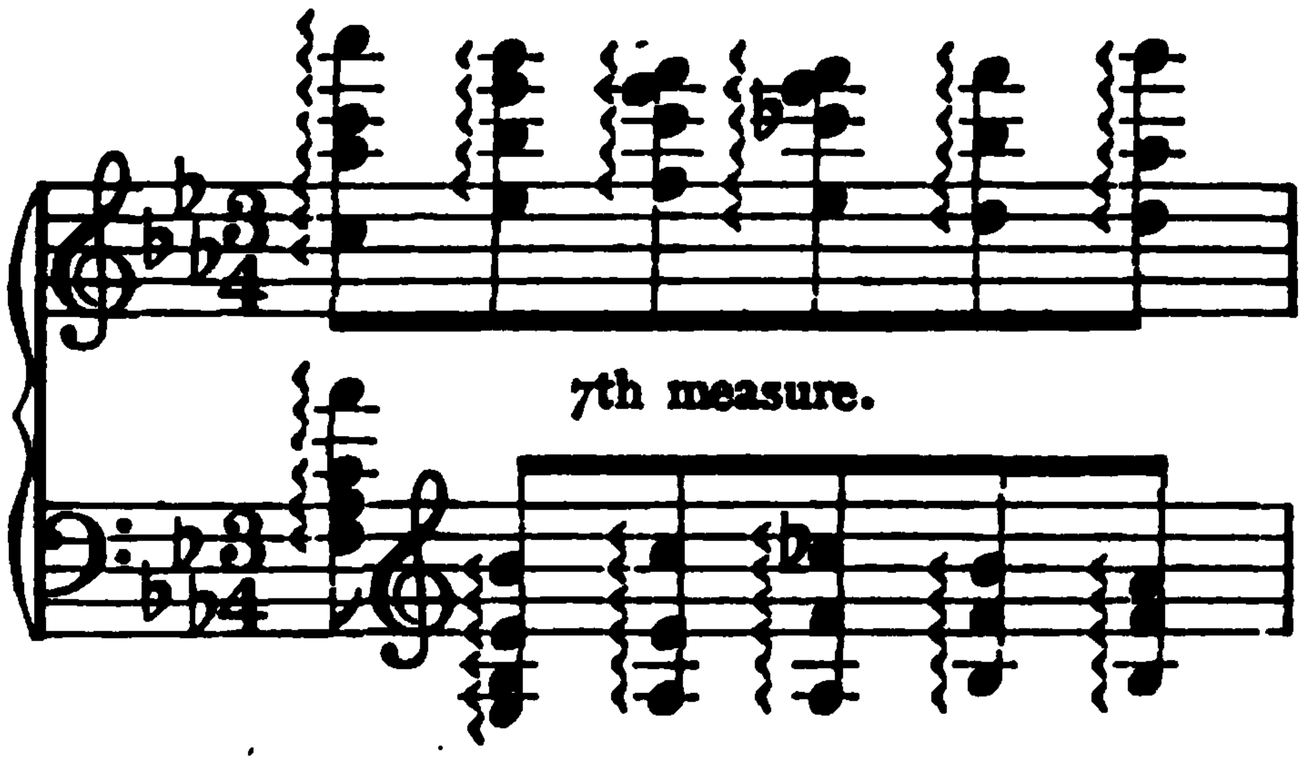
The rhythmic broken chord style together with harmonic figuration is particularly well adapted to the pianoforte. The following quotation demonstrates:

Ex. 172.

F. CHOPIN, Op. 66, No. 4.

Ped.
tr
a tempo.
tr
etc.

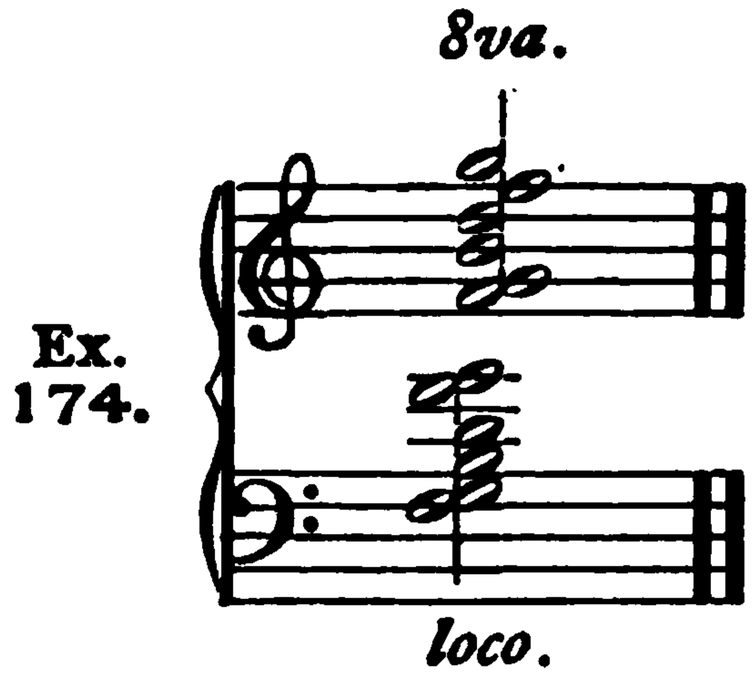
In the above quotation, there are apparently but two voice parts, but the chords are well brought out and the quotation is not contrapuntal. The broken chord in the left hand does duty for several voices and the harmonic effect is the same as though several voices were heard simultaneously.

The broken chord in arpeggio style permits the use of many voices:

Ex. 173.

Chopin's Etude, Op. 10, No. 11, from which the above quotation is taken, is written throughout in arpeggio style.

Without breaking a chord, as many as twelve voices may appear, in which case one finger in each hand plays two tones:

Ex. 174.



Voice parts upon the pianoforte may be added or discontinued at the pleasure of the composer and melodies and voice progressions may be multiplied in octaves. Parallel octaves therefore abound in pianoforte literature.

The String Quartet.

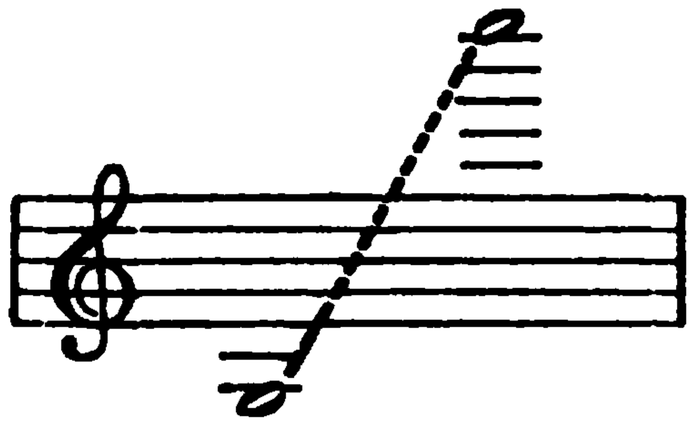
Many and rich resources are found in composing for the String Quartet. Greater scope as to voice compass and technicalities is offered in this style of writing than is possible in the vocal style. Chords are possible on each of the instruments of the quartet and the composition is therefore not limited to four-part writing. Varied effects may be produced by introducing *pizzicato*, muted strings, *harmonics* and *ponticello*.

Two violins (first and second), viola and 'cello, constitute the string quartet. The first violin corresponds to the soprano, the second violin to the alto, the viola to the tenor and the 'cello to the bass.

The Violin.

The four strings of the violin are tuned to g , d , a and e . The compass of the instrument follows:

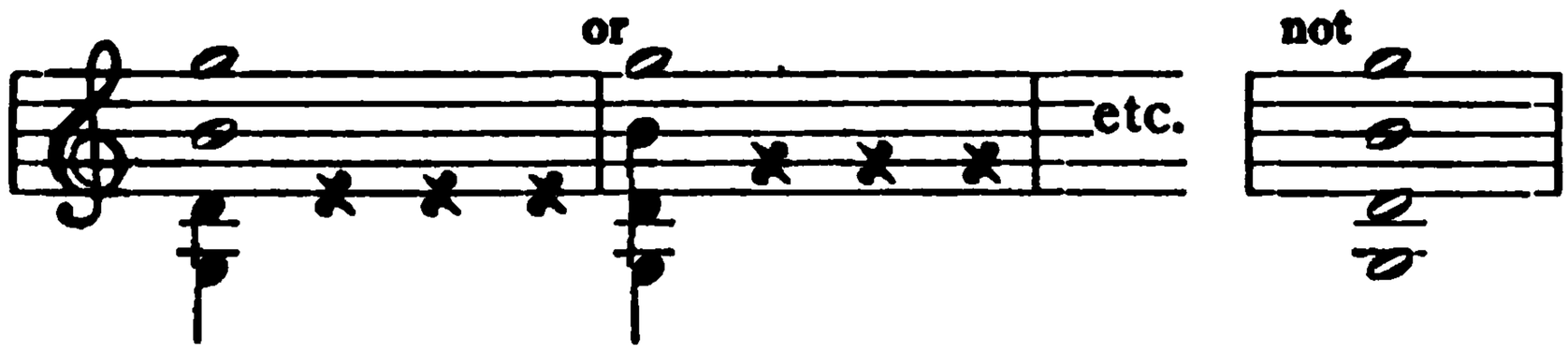
Ex. 175.



Several tones higher than the above may be written for *virtuosi*. By the use of harmonics, tones higher than indicated may be produced.

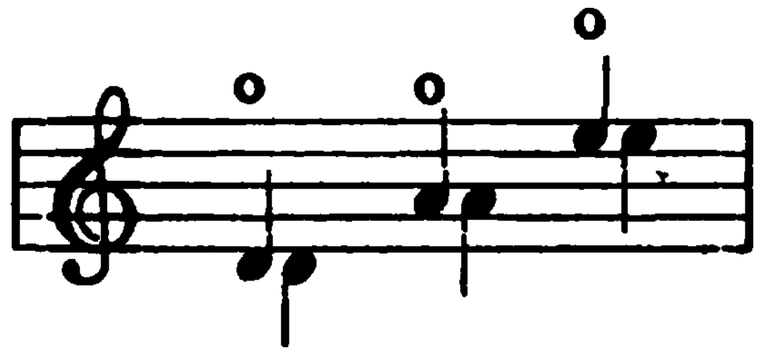
A tone produced upon an open string is more sonorous than a tone which requires fingering. Sharp keys are, therefore, more frequently used in composing for strings than flat keys. Open tones are often designated by an ° over the note.

Chords* of two, three, and four tones are possible upon the violin. Chords of two tones may be employed *piano* or *forte*, but chords of three or four tones for a single performer should only be employed in *forte* passages. In writing chords of three or four tones, not over two tones should be sustained.

Ex. 176.

All chords below the d string are, of course, impossible upon a single instrument unless the tuning of the strings is lowered or the chord played *arpeggio* or *tremolo*. Where such chords are written the tones of which are to be sounded simultaneously, two or more performers to the part are necessary and the chords are marked *divisi*.

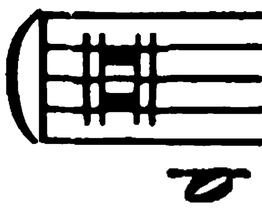
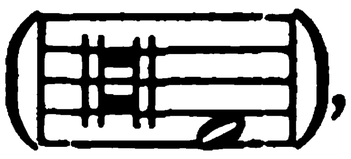
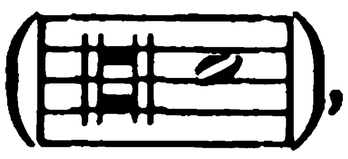
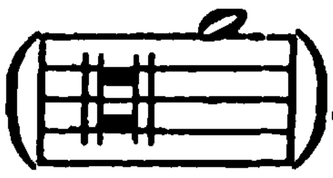
*When writing chords for the string instruments the student should have tables of playable chords for ready reference. Such tables may be found in most treatises upon instrumentation.

The unison may be employed effectively upon d, a and e, in which case, one of the tones will be produced upon an open string:

Ex. 177.

Other unisons offer technical difficulties.

Arpeggi, tremolos, rapid passages, and all musical ornaments are effective upon the violin.

The Viola.

The four strings of the viola are tuned to c  , g  , d  , and a  . The practical compass of the instrument follows:

Ex. 178.

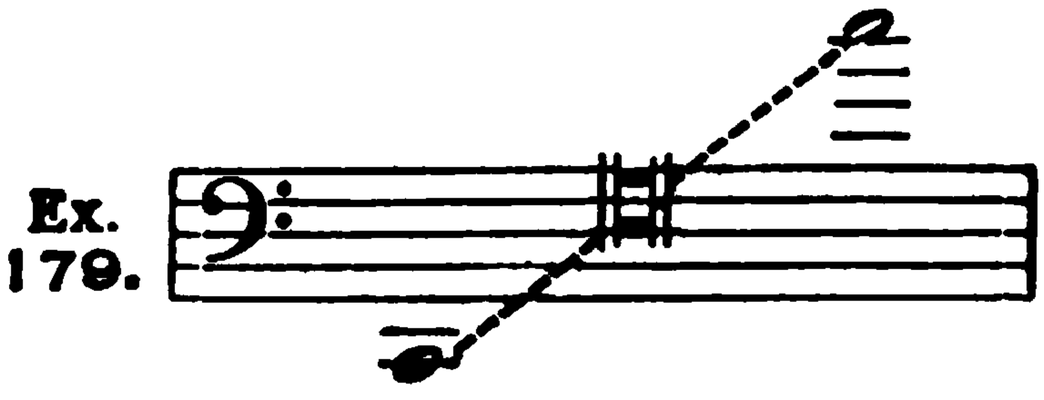
The low and middle registers of the viola are notated in the C-clef upon the third line and the upper register in the G-clef.

All that has been said of the different effects upon the violin as well as of the technique of writing for this instrument is applicable to the viola.

The 'Cello (Violoncello).

The four strings of the 'cello are tuned to c , g , d , and a . The lower and middle registers are notated in the F-clef; the middle register is also notated in the C-clef on any staff degree but usually on the fourth line; the upper register is notated in the C-clef or the G-clef. The notation in the G-clef at the commencement or when following the F-clef indicates tones an octave higher than they sound, but when following the C-clef the notation shows the actual sounds. The practical compass of the instrument follows:

Ex. 179.



That that has been said of the violin is true of the 'cello with the modification that the 'cello does not lend itself to as rapid passages as the violin.

Duplication of Factors.

Duplication or omission of chord factors cannot be bound by rules. In orchestral composition where many duplications are necessary, effective results depend upon the experience and ingenuity of the composer as well as upon the character of the composition at hand. Some orchestral compositions are adapted to three sectional arrangements, in which case a four or more voice chord for strings is duplicated by wood wind and brass. Such an arrangement need not, necessarily, preponderate in orchestral composition, and, in fact, the so-called orchestral colorings are obtained by deviations from the above arrangement.

A remarkable example of duplication is to be found in the last measure of Saint-Saëns' *Introduction and Rondo Capriccioso* for violin and orchestra. Here, the chord contains fifteen roots, one third, and two fifths.

Occasionally the technical possibilities of an instrument influence the manner and number of duplications, but artistic chord effects should not be sacrificed to techniques of an instrument.

Exercises, Group 15.

Harmonize according to directions, Exercises 1–3 in Appendix B, page 147. The work in Appendix A should now be commenced.

CHAPTER XVI.

BINARY AND TERNARY FORMS.

The simplest two-part composition consists of two balancing periods. Tonal variety is obtained by modulation as is shown in the following diagram:

Diagram 6.

A 1st Period (Antecedent).	B 2nd Period (Consequent).
8 or 16 measures, if regular. May or may not repeat.	8 or 16 measures, if regular. May or may not repeat.
Key of C modulating to G, F, a or e, etc.	Modulating back to and ending in C.

The simplest three-part composition consists of three divisions, the second part being a contrast after statement and the third being a restatement after contrast. The contrast is obtained by the appearance

of a new theme or motive, and tonal variety is obtained by the appearance of the second part in a new key. Tonal unity is preserved by the reappearance of the "home key" at restatement. The following diagram illustrates:

Diagram 7.

A First Period. (Statement).	B Second Period. (Contrast).	A Third Period. (Restatement).
8 or 16 measures, if regular. May or may not repeat.	8 or 16 measures, if regular. May or may not repeat.	8 or 16 measures, if regular. May or may not repeat.
Theme I in the key of the signature. Transitions may be made.	Theme II in a contrasting key. Transitions may be made.	Recurrence of Theme I in the original key. Sometimes verbatim, sometimes varied.

Most dance music from the old dance of the Classical Suite to our modern waltzes are in either two-part or three-part form.

It will be remembered that in the division of a period, we had thesis and antithesis, or, in other words, an antecedent division followed by a consequent division. Two-part form often presents similar construction — an antecedent period followed by a consequent period.

In two-part and three-part form, transition, as well as modulation, may occur, but too much transition and transition to remote keys (especially in binary form) is likely to obscure the main keys in short or simple compositions.

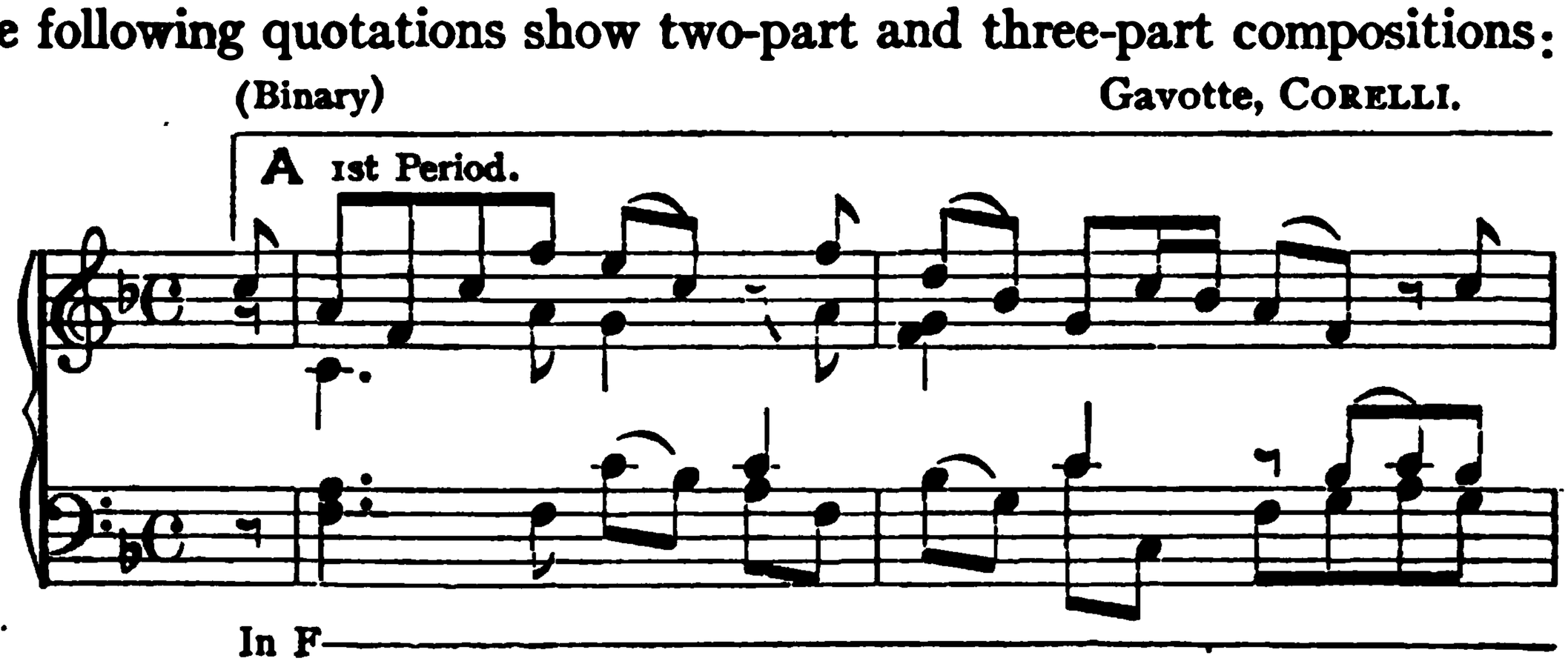
These two forms (binary and ternary) serve as the basis for the more elaborate forms. Frequently a composition as a whole shows binary or ternary form also a well defined part of the composition shows one of these forms. (See Bach, Gavotte, Ex. 183.)

The classical and modern suites should be carefully studied and analyzed, also the waltzes, marches, etc., of modern composers. Many of the songs of Schubert and Schumann are valuable examples of these forms.

The following quotations show two-part and three-part compositions:

(Binary) Gavotte, CORELLI.

Ex. 180.



1st Period repeated.

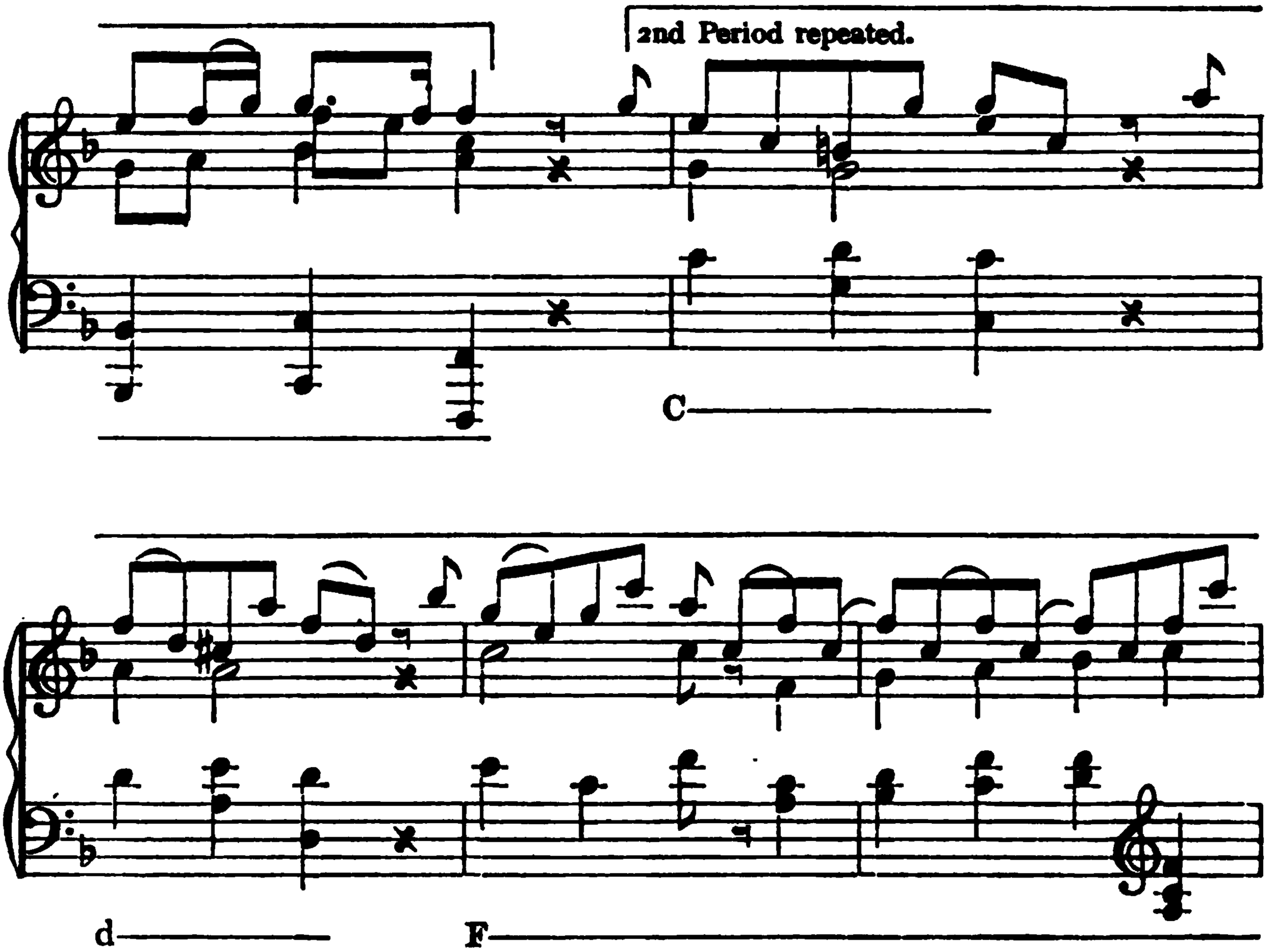
In C In F

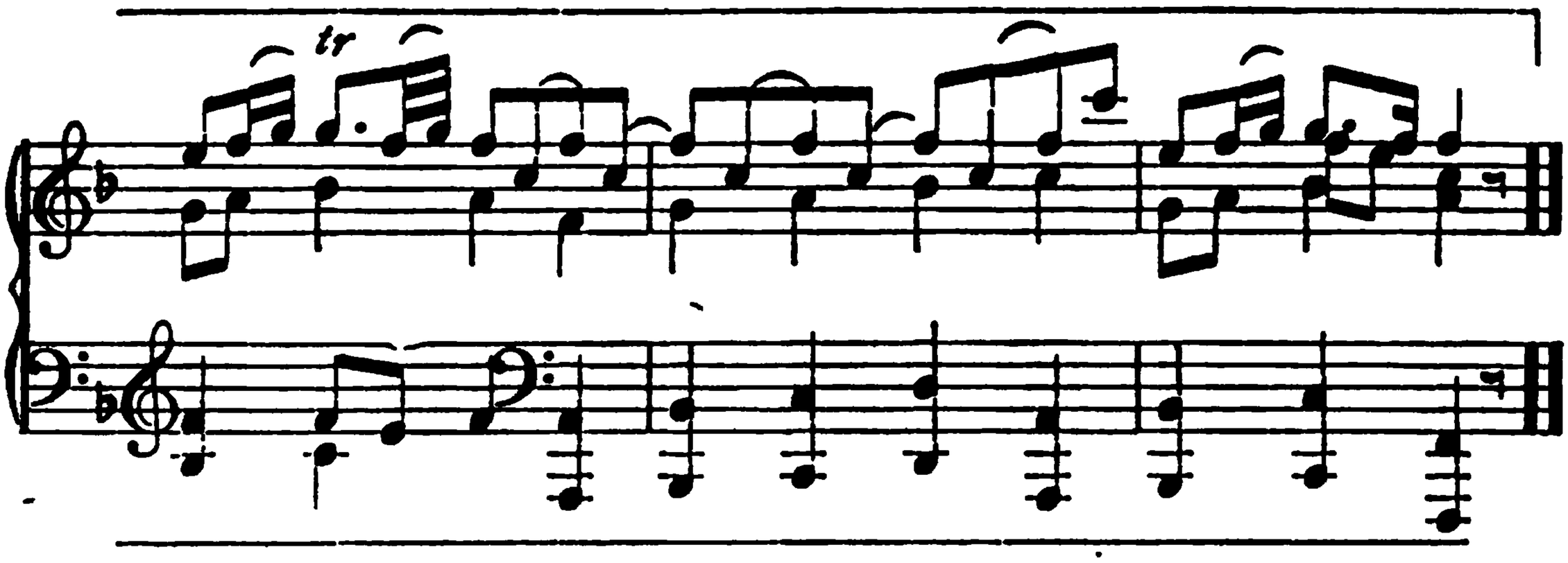
In C

B 2nd Period.

In d In F

tr

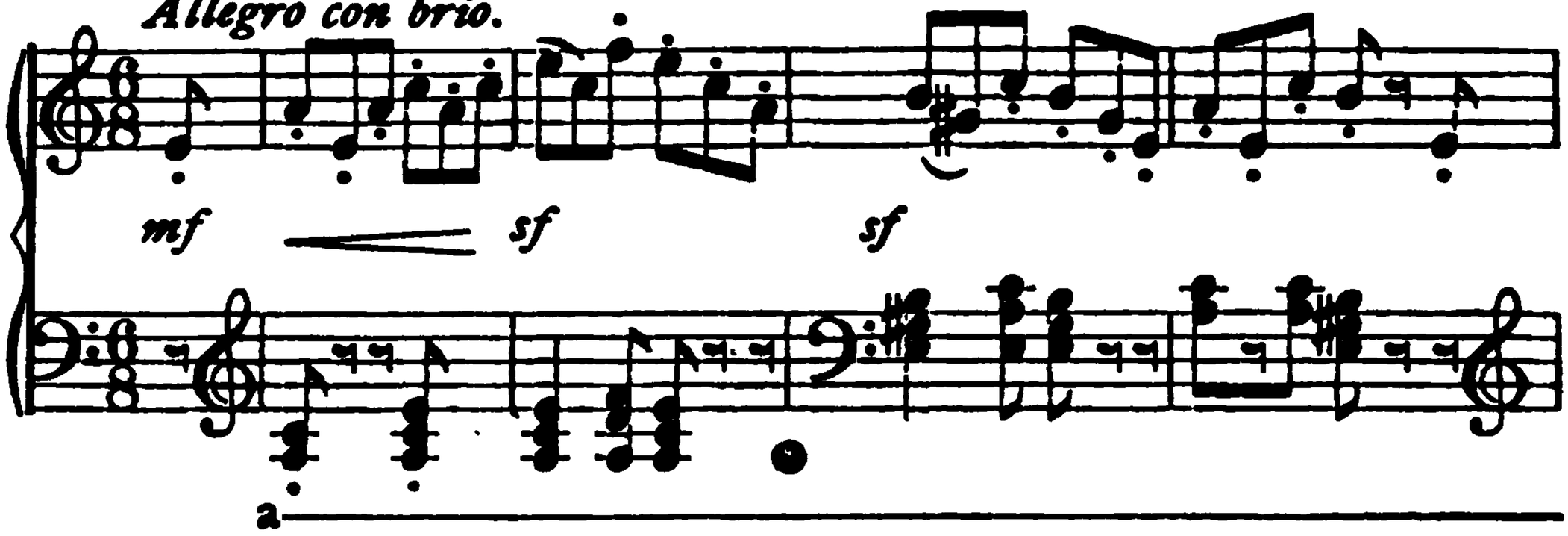




(Ternary)

A 1st Period in *a minor*. R. SCHUMANN, Op. 68, No. 8.

Allegro con brio.

Ex. 181.

sf *sf*

B 2nd Period in *F major*.

sf *sf*

F

sf *sf*

A 3rd Period in *a minor*.

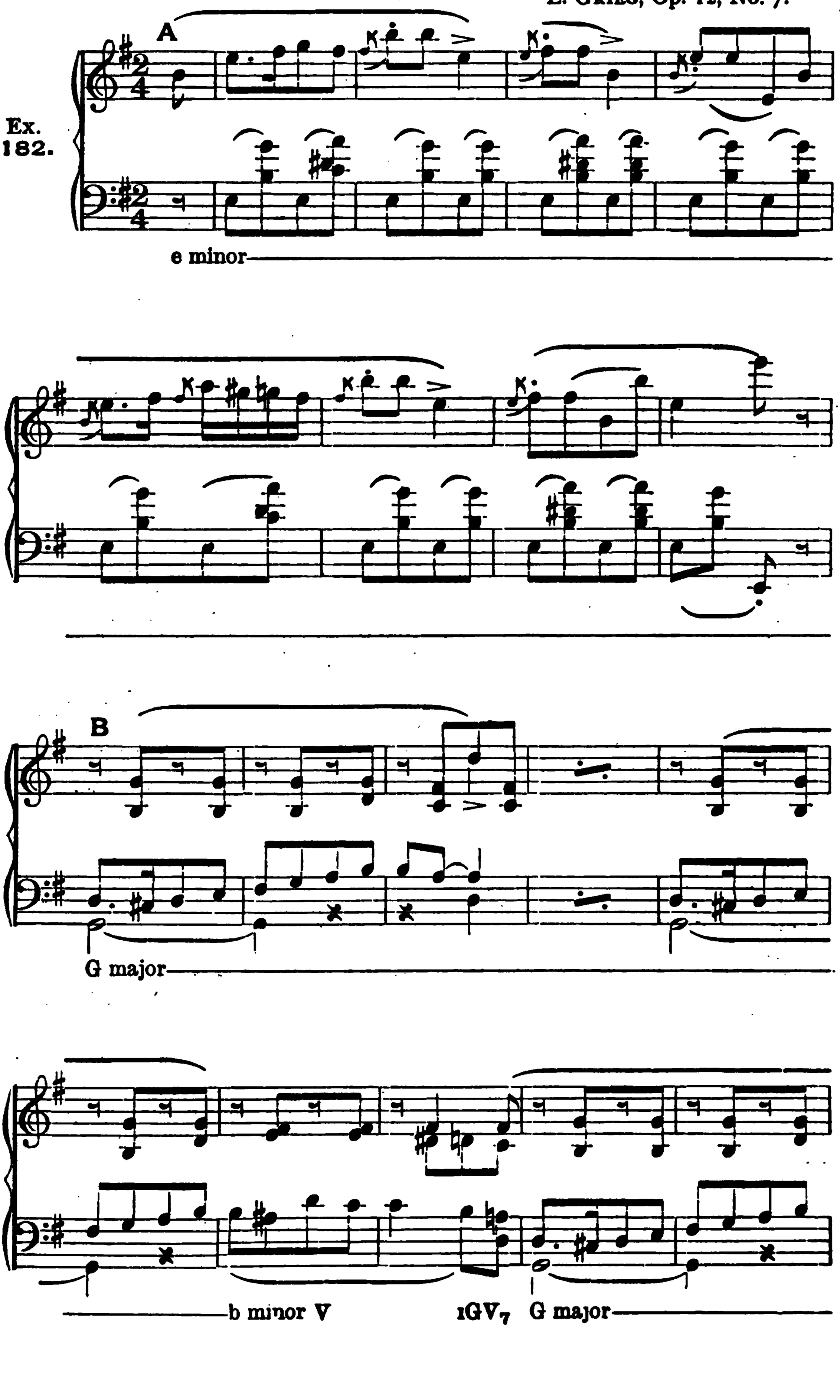
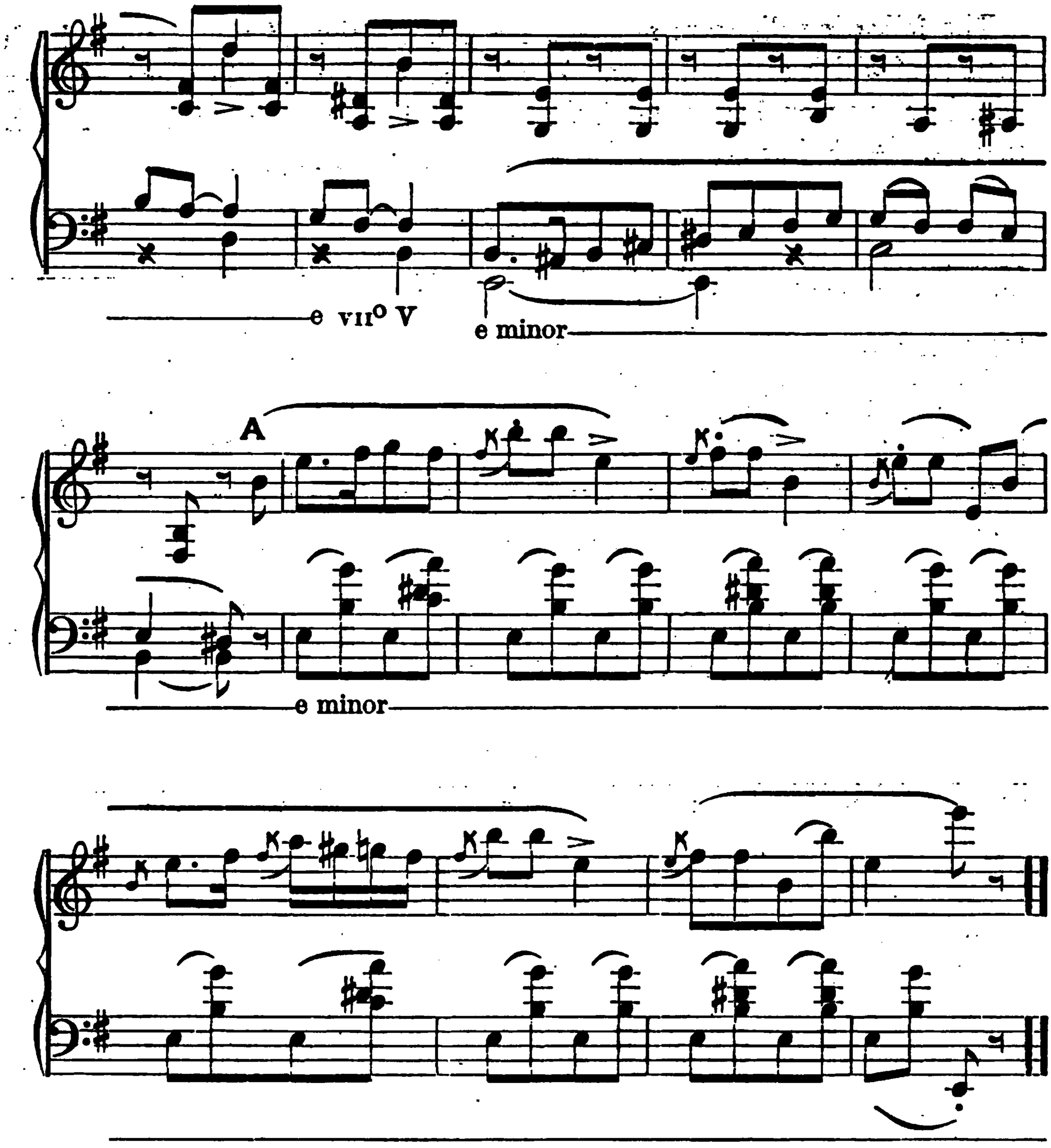
mf *sf* *sf*

a

sf *sf*

E. GRIEG, Op. 12, No. 7.

Ex. 182.



In the above example, the first period **A** is in the key of e minor. The second period **B** is in the key of the relative major but ends in the original key, e minor. The third period (the second **A**) is in the key of e minor. The modulations are as follows: from e to G and from G to e. At the fifteenth measure, there is a transition from G to b returning to G in the sixteenth measure.

The above quotations exemplify simple binary and ternary forms. They are examples of the forms in the strict application of the terms and coincide with diagrams 6 and 7. Many binary and ternary compositions are less regular in construction and many are more elaborate. Analysis is the key to success in understanding the ways in which compositions in these forms are varied.

The following diagram represents a composition of two themes, both themes of which are in the same key but in which several other tonalities transitorily occur, hence the desirableness of the same main key for both themes. A similar construction is possible in three-part form.

Diagram 8.

A First Period. (Theme 1.)	B Second Period. Theme 2.)
May or may not repeat.	May or may not repeat.
Commencing and ending in the key of the signature. One transition or several are made.	Commencing and ending in the same key as theme 1. One transition or several are made.

The following diagram shows a common ternary construction. Many compositions similarly constructed may at first sight appear too complex for three-part form, but a careful analysis will show the means by which complexity is gained upon a basis of ternary form.

Diagram 9.

A First Period.	B Second Period.	C Third Period.
May or may not repeat.	:	:
First theme presented in one of the ways previously described.	Second theme presented in one of the ways previously described.	First theme verbatim or may be varied by contraction, expansion and other means. To end in the main key of the composition is its principal formal obligation.

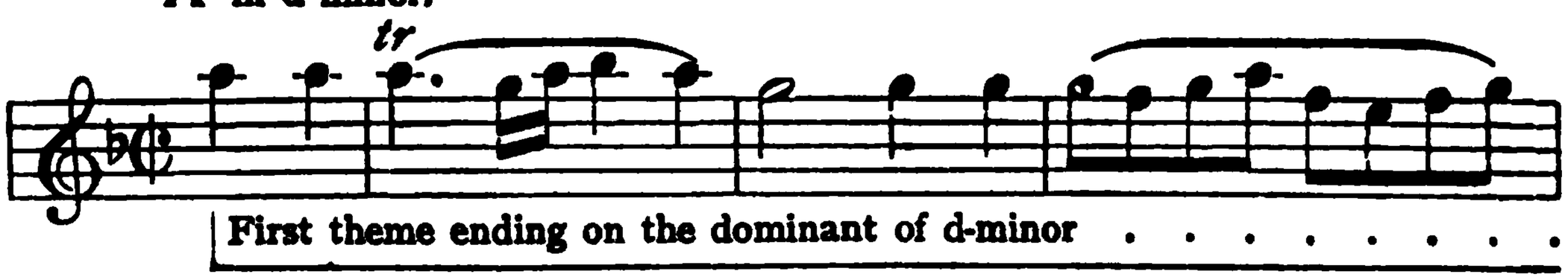
For a simple application of the above structure see Schumann, Op. 68, No. 20.

The construction of Bach's Gavotte from the Sixth English Suite is shown in the following quotation of the upper voice part. This composition is in two divisions called Gavotte I and Gavotte II (Musette). Each division is in three-part form similar to Diagram 9 and the composition as a whole is in three-part form.

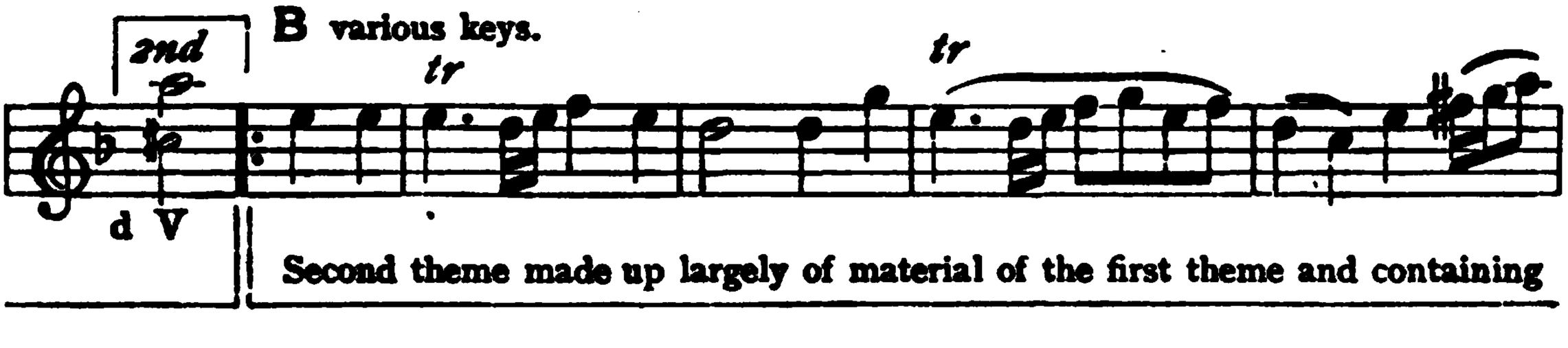
Gavotte I. J. S. BACH.

A in d minor.

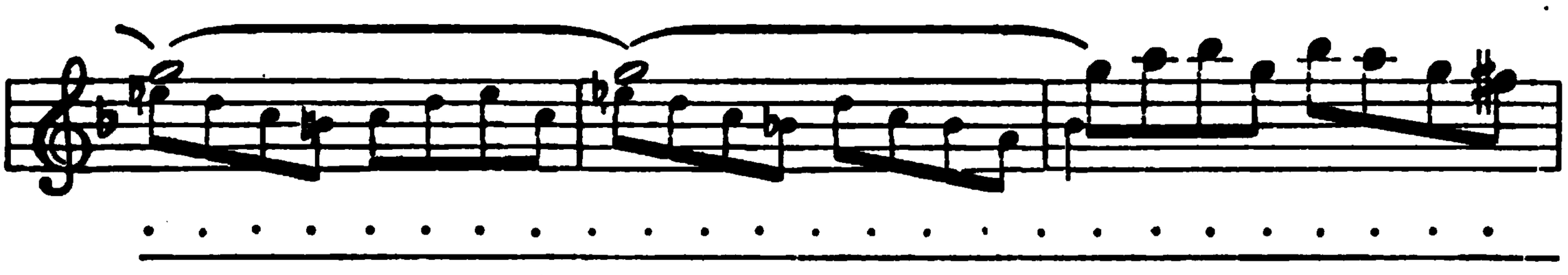
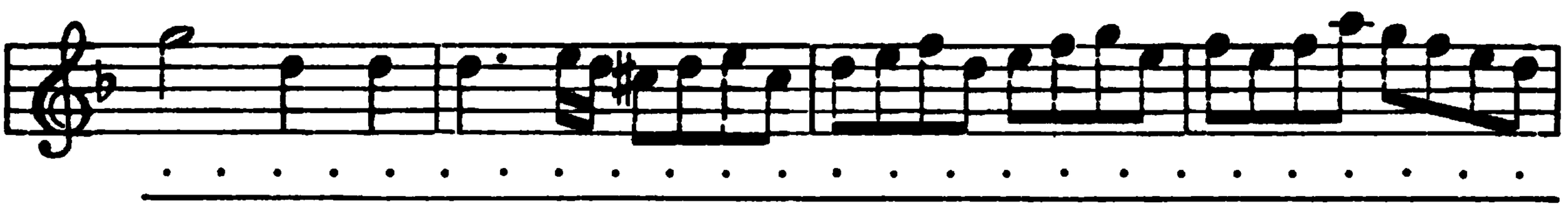
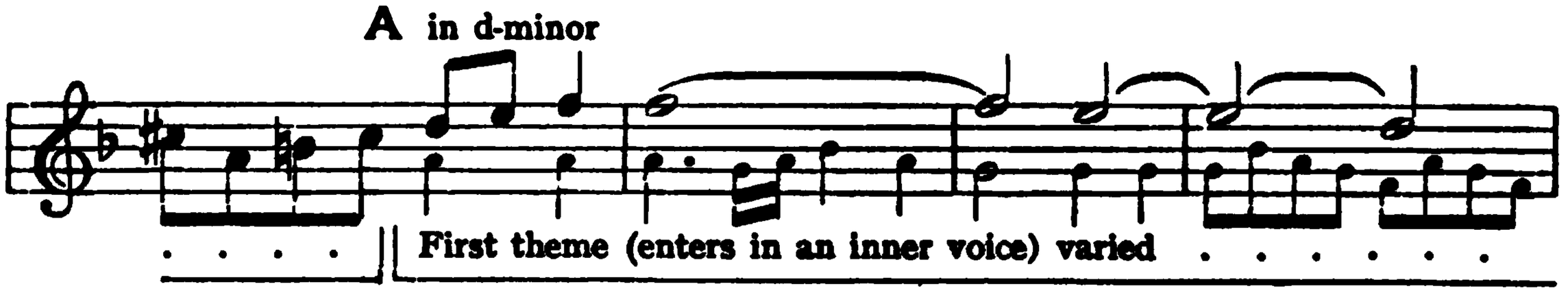
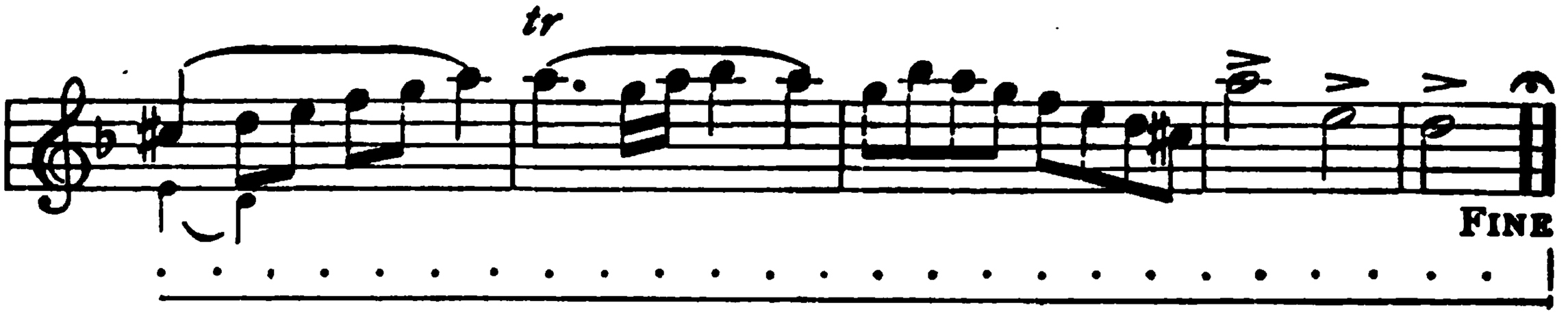
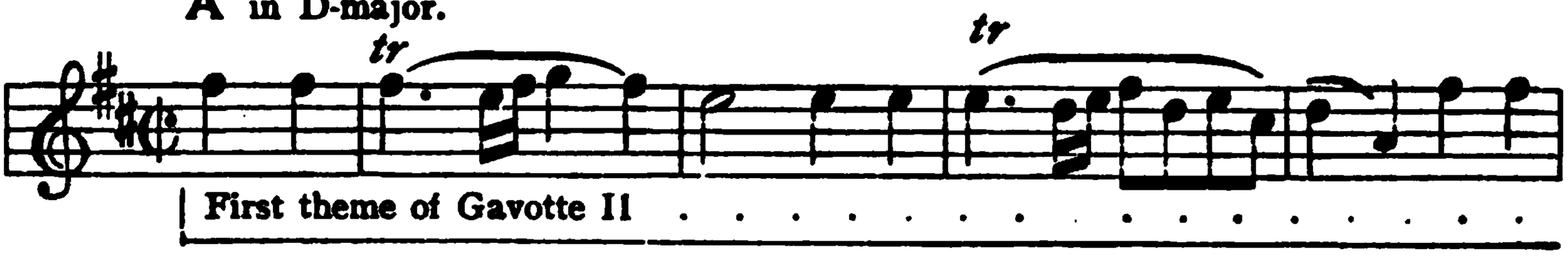
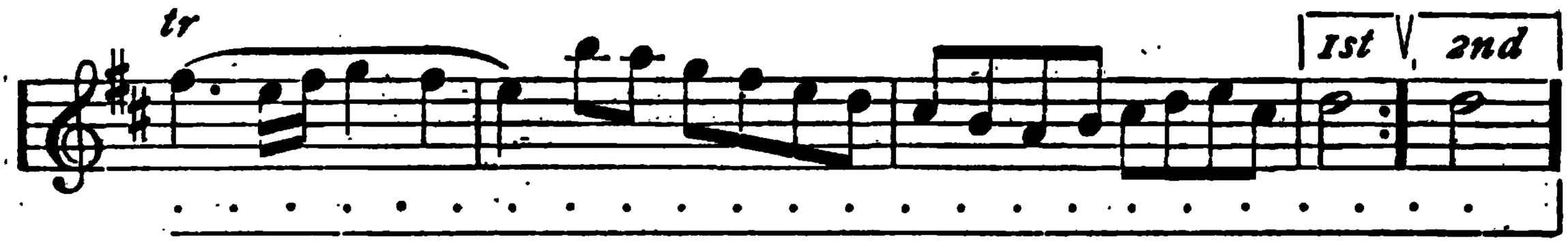
Ex. 188.

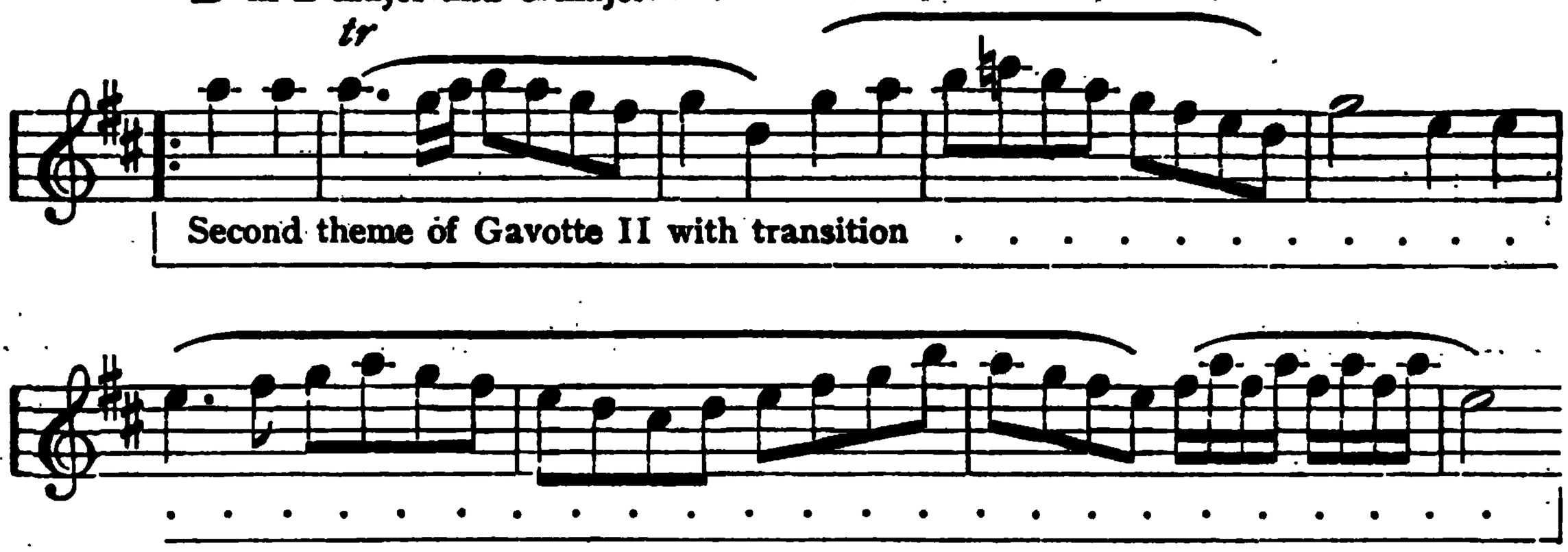


First theme ending on the dominant of d-minor . . . . . .



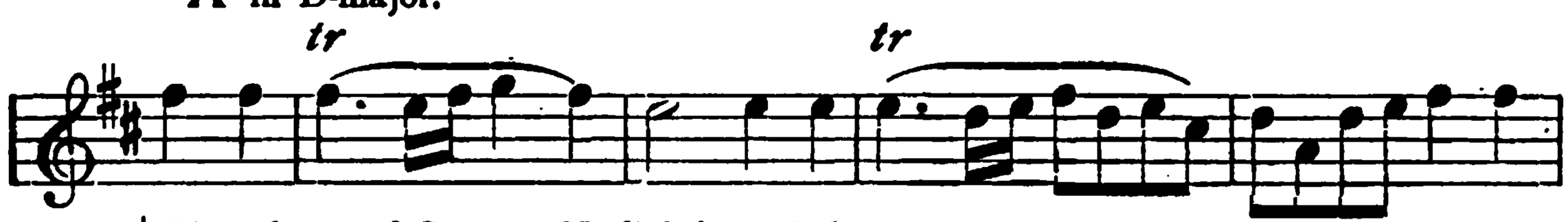
Second theme made up largely of material of the first theme and containing

free transition commencing in a minor

First theme (enters in an inner voice) varied

Gavotte II (Musette)

First theme of Gavotte II

B in D-major and G-major.

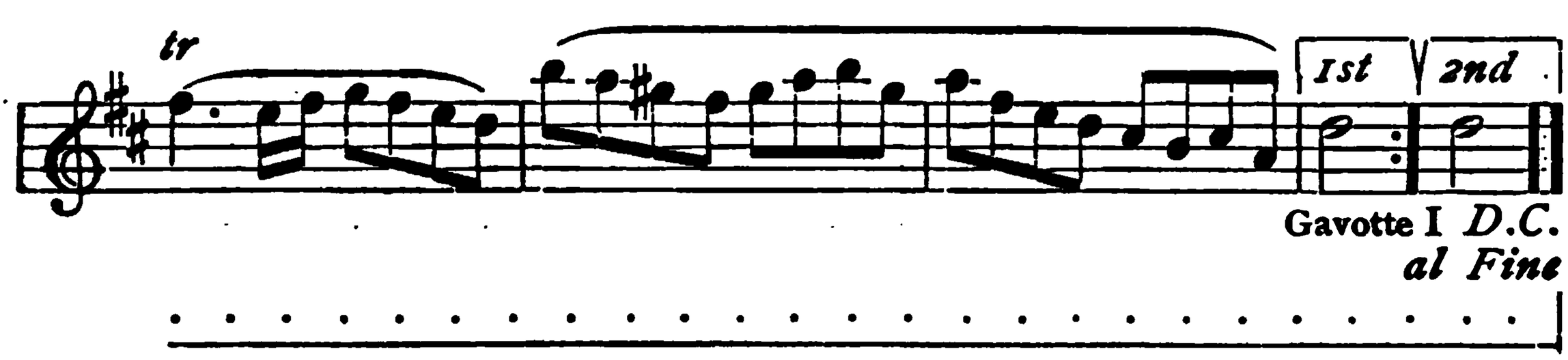


Second theme of Gavotte II with transition

A in D-major.



First theme of Gavotte II slightly varied



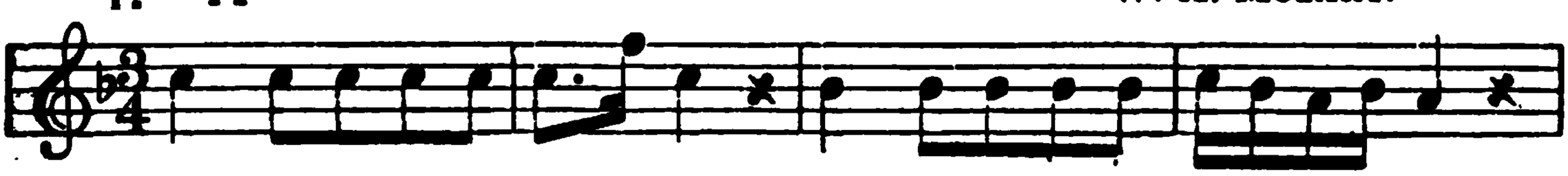
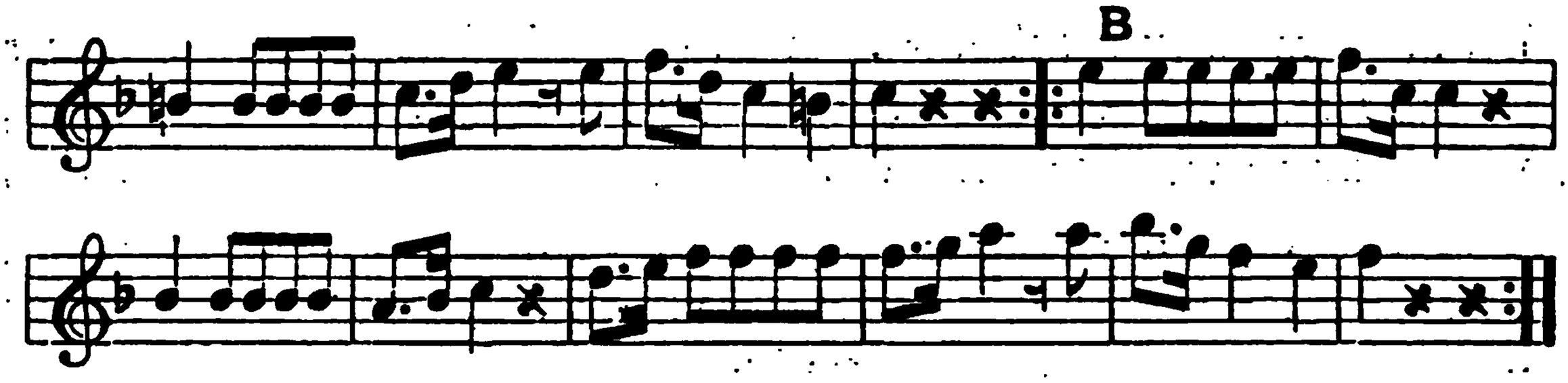
Gavotte I *D.C. al Fine*

Notice that the first theme, **A**, of Gavotte I ends with dominant harmony (Half Cadence) which is irregular. Notice, too, that the consequent themes show less contrast than consequent themes in most music of the nineteenth and twentieth centuries; the motives and figures of all the themes show considerable similarity although each theme has individuality, and the composition can hardly be considered what we may call a monothematic composition. For such a composition see Schumann's *Traumerei* (Appendix B, No. 2).

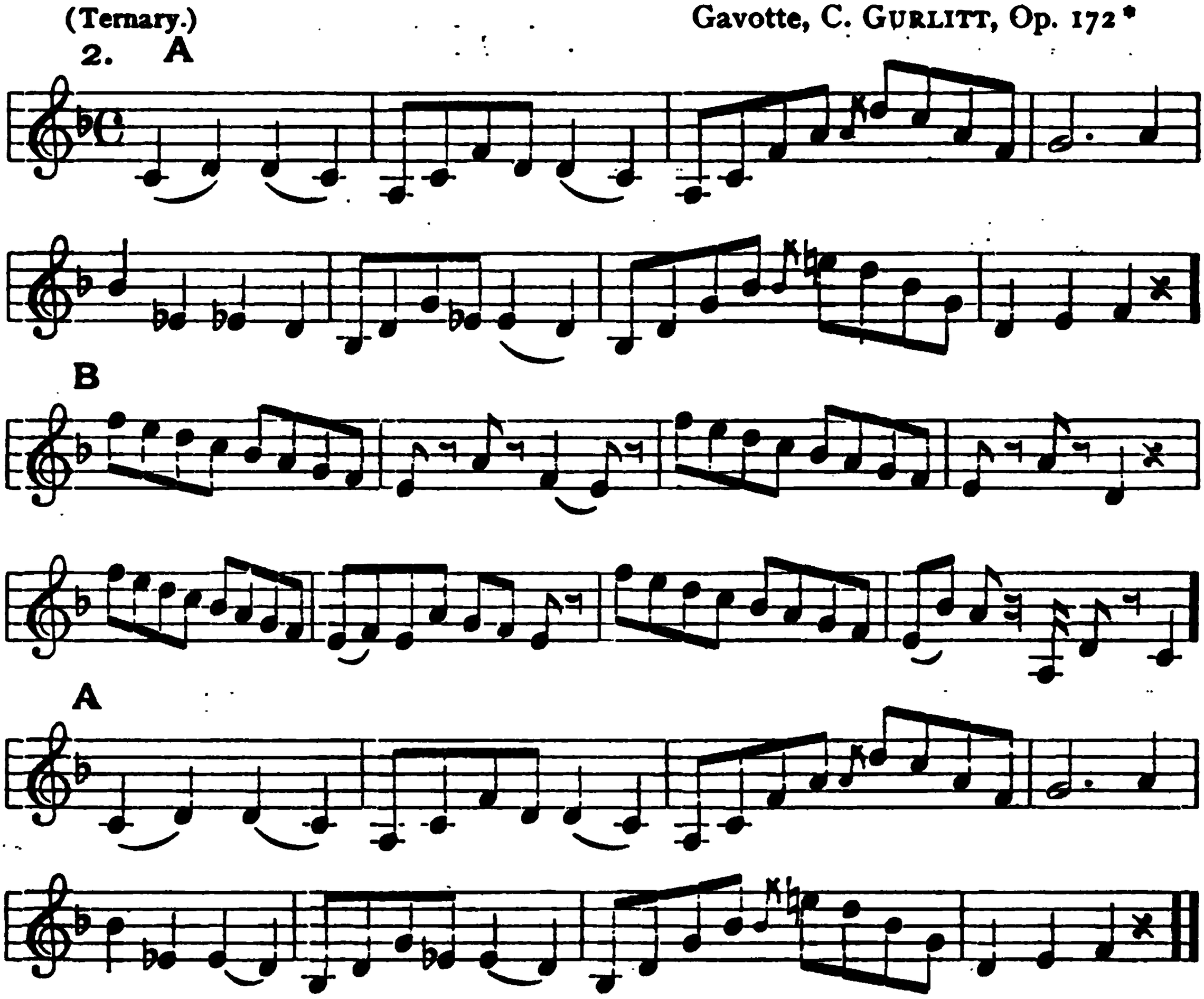
Exercises, Group 16.

(Binary)
1. **A**

Menuet from *Don Juan*.
W. A. Mozart.



(Ternary.)

Gavotte, C. GURLITT, Op. 172 *

3. Harmonize Example 183.

Continue the work in Appendix A.

CHAPTER XVII.

INTRODUCTION, INTERMEZZO, EPISODE, AND CODA.

A composition is frequently preceded by introductory measures. A long introduction may form a satisfactorily complete composition in itself such as are found in many overtures, sets of waltzes, etc. The introductory measures usually foreshadow the themes, establish the main

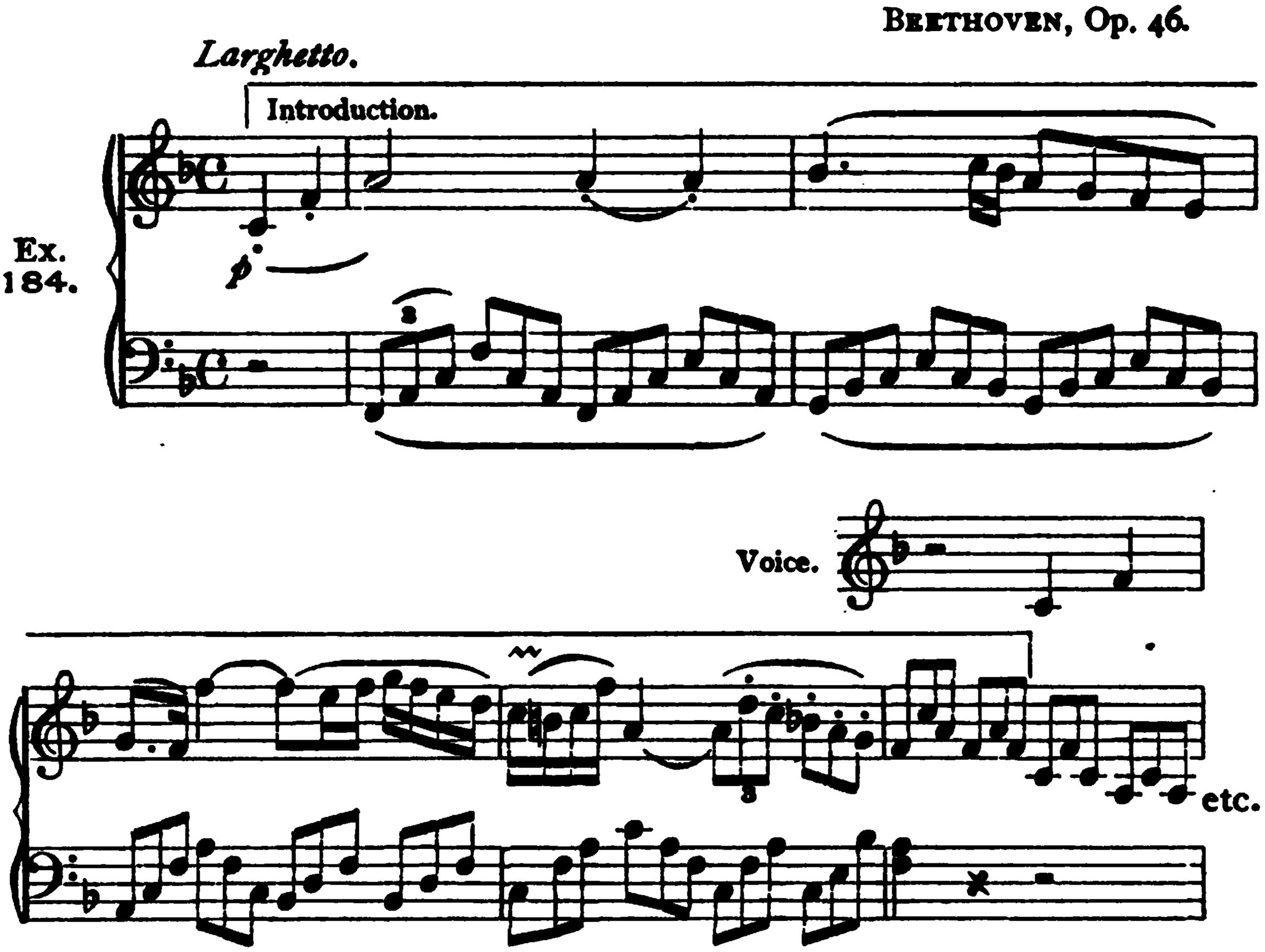
* Copyright, 1890, Arthur P. Schmidt.

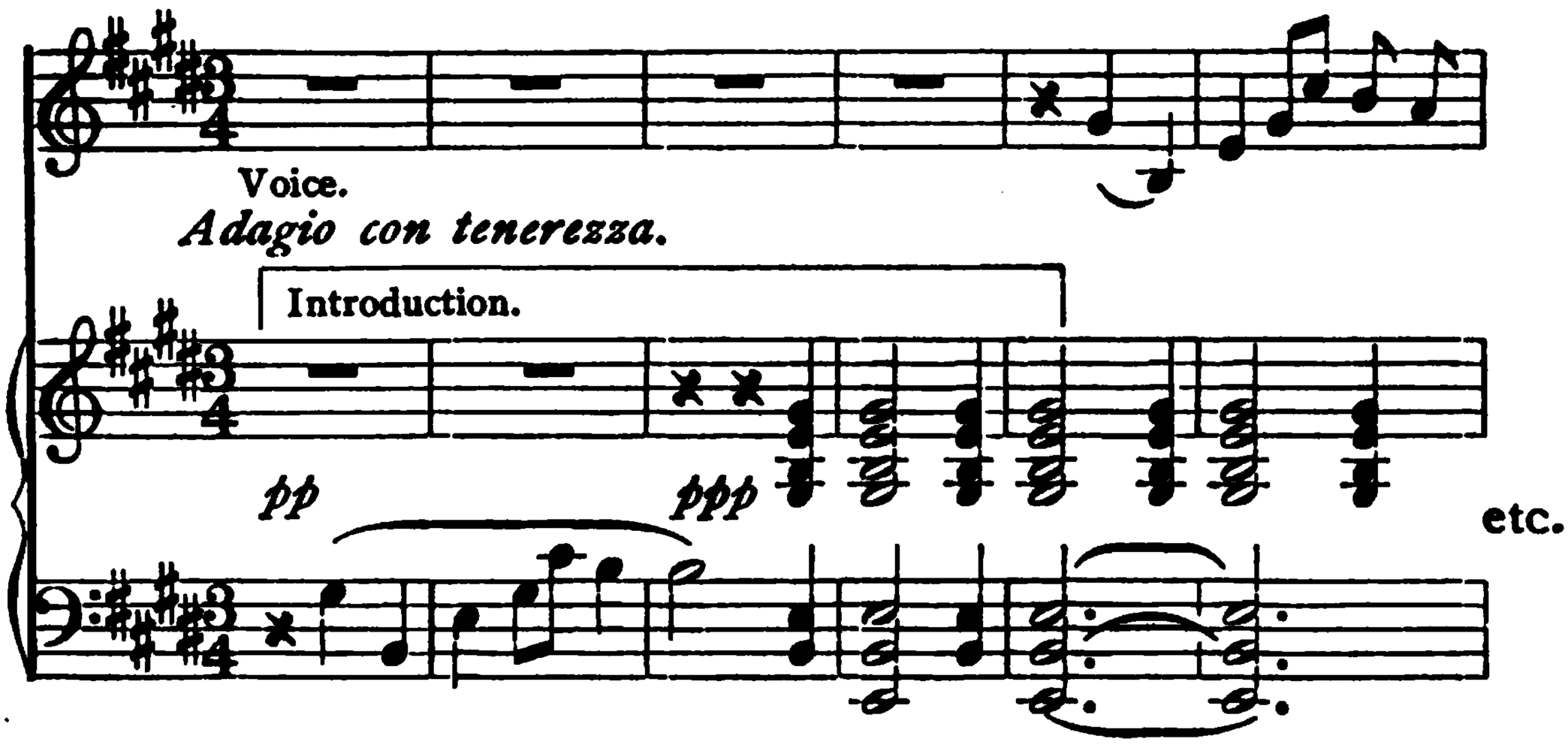
key and sometimes the rhythm. In case that the introductory measures do not foreshadow that that is to follow but simply establish the key, such measures are often called *prelude* in contradistinction to *introduction*.

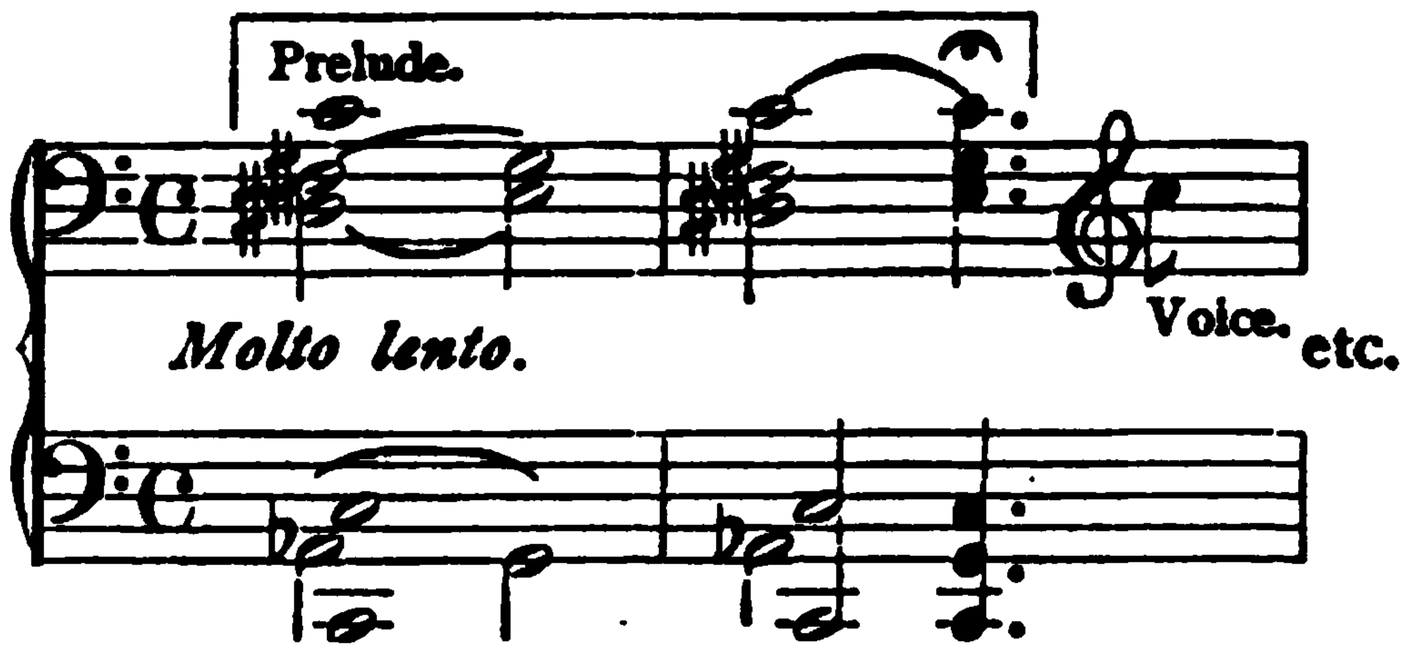
The term *prelude* is also applied to compositions which are more or less free in form and of the nature of free improvisation but not introductory. Such an application of the term may be found in Chopin's *Preludes*.

Quotations of short introductions and preludes follow:

BEETHOVEN, Op. 46.

Ex. 184.

F. LISZT, *Du Bist Wie Eine Blume.*

Ex. 185.

F. SCHUBERT, *Am Meer.*

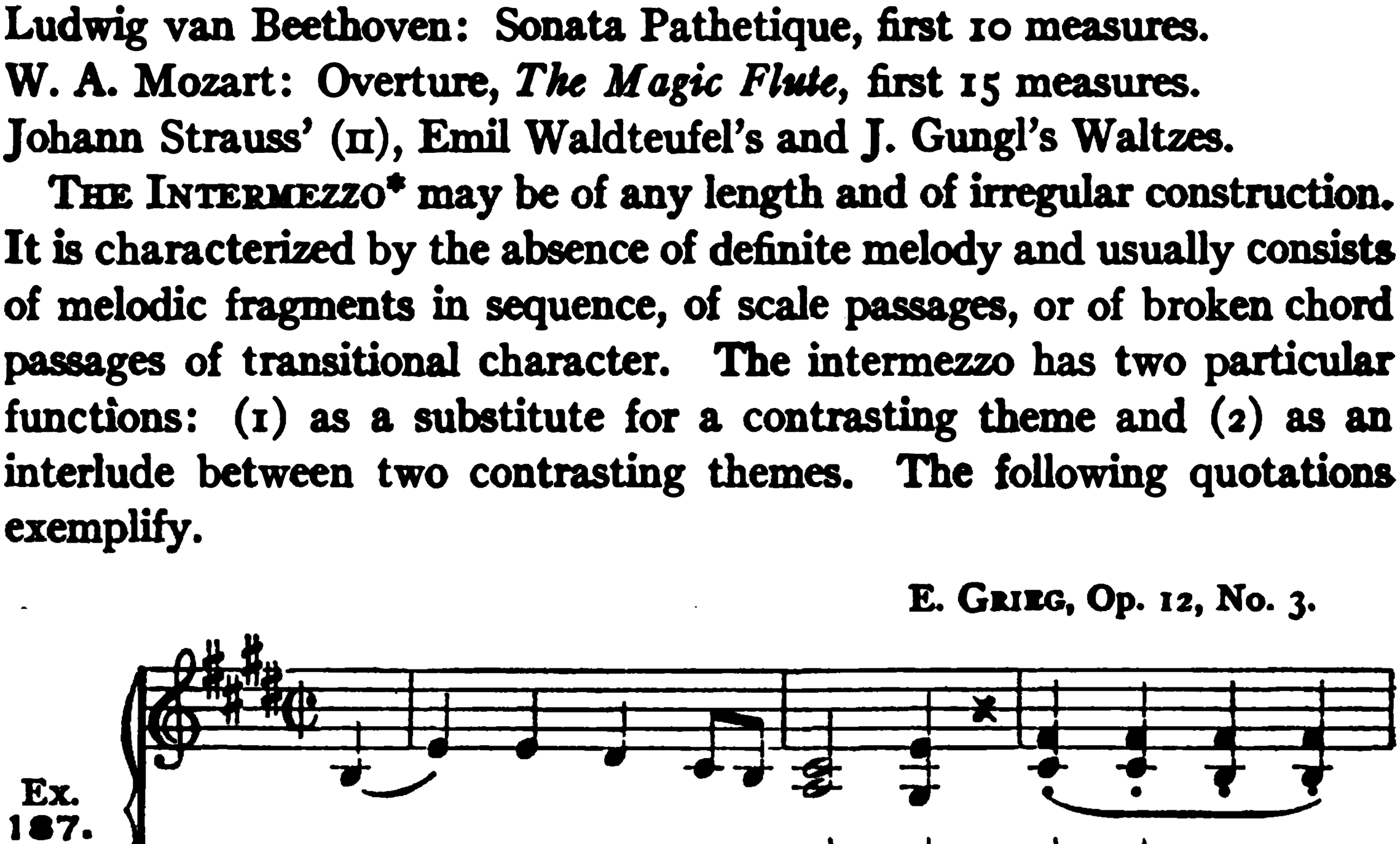
Ex. 186.

For examples of long introductions the student is referred to the following compositions:

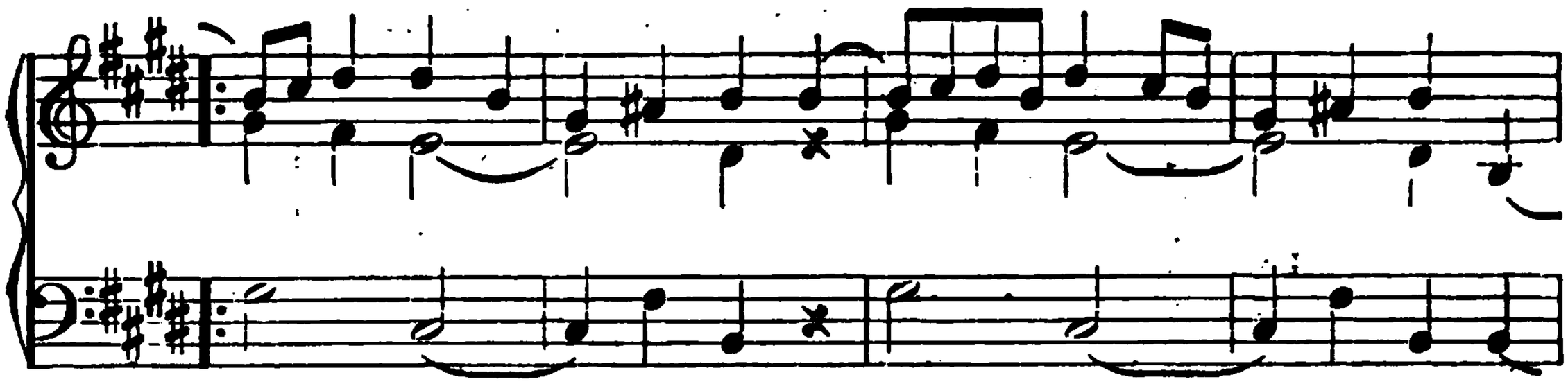
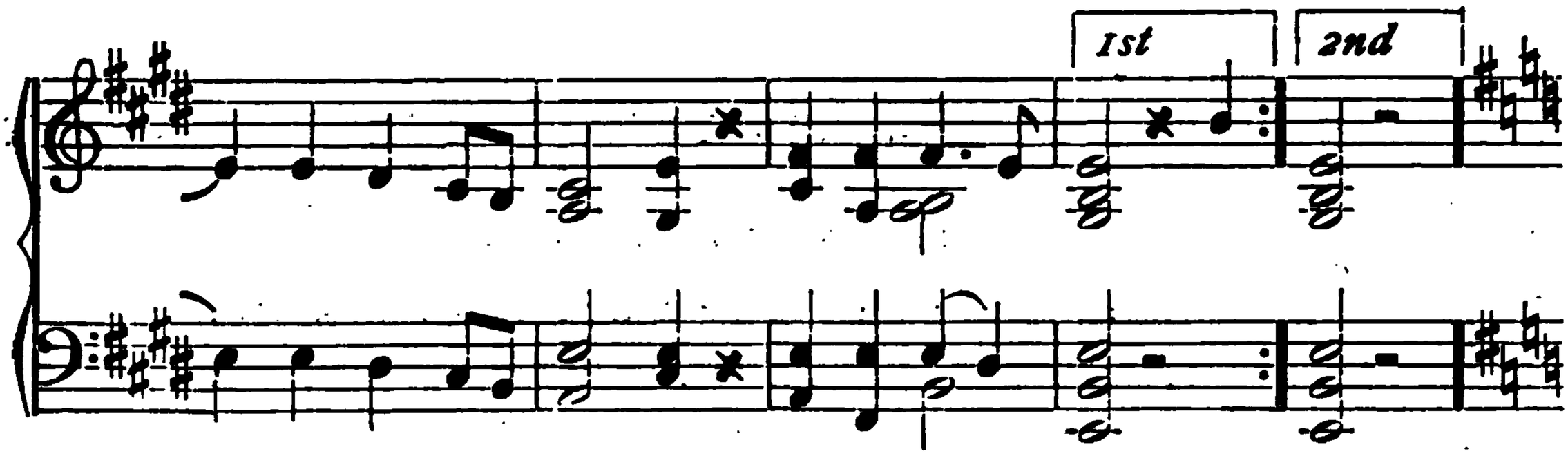
Joseph Haydn: Symphony in G Major, first 17 measures.
Ludwig van Beethoven: Sonata Pathetique, first 10 measures.
W. A. Mozart: Overture, *The Magic Flute*, first 15 measures.
Johann Strauss' (II), Emil Waldteufel's and J. Gungl's Waltzes.

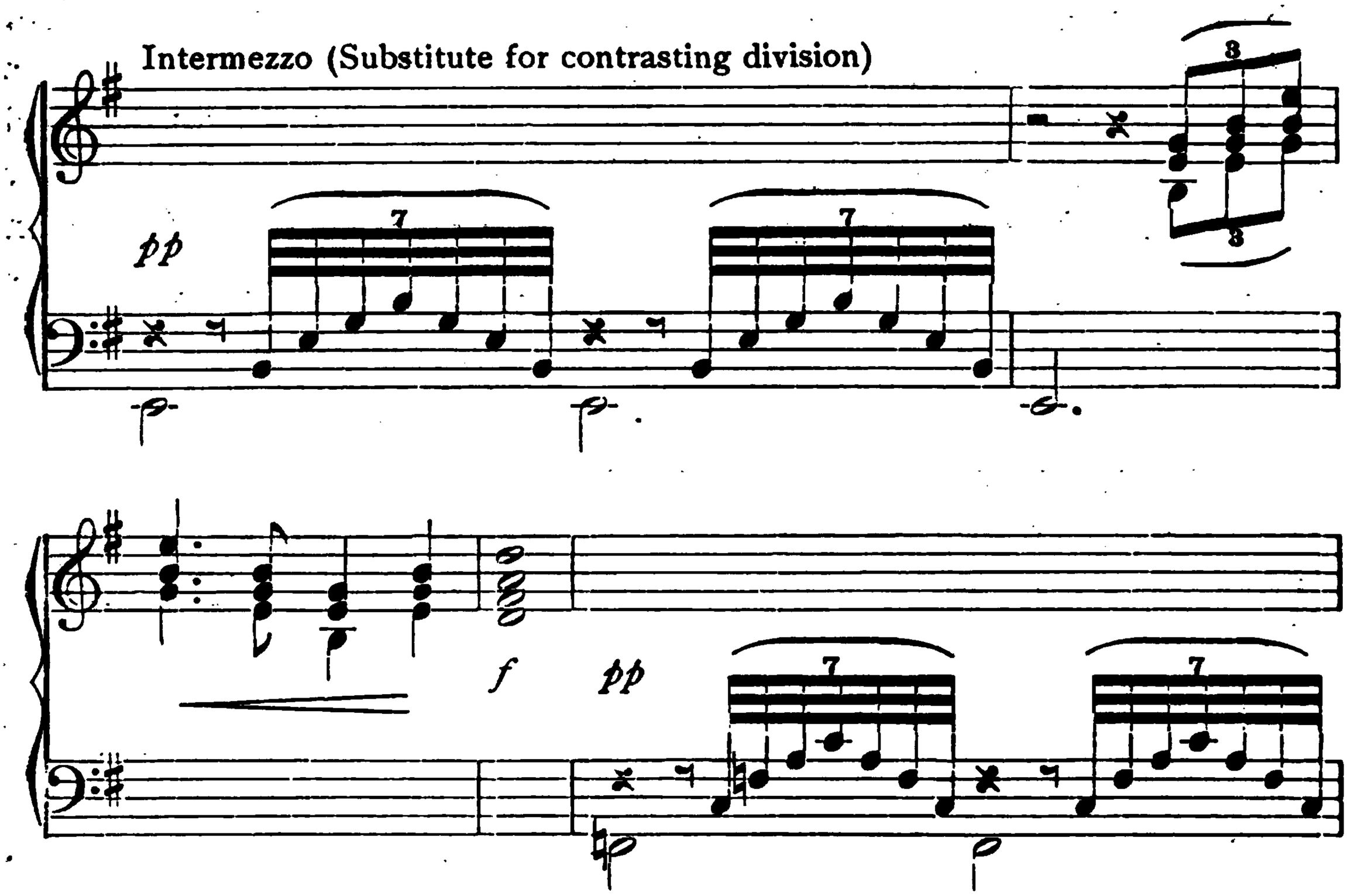
THE INTERMEZZO* may be of any length and of irregular construction. It is characterized by the absence of definite melody and usually consists of melodic fragments in sequence, of scale passages, or of broken chord passages of transitional character. The intermezzo has two particular functions: (1) as a substitute for a contrasting theme and (2) as an interlude between two contrasting themes. The following quotations exemplify.

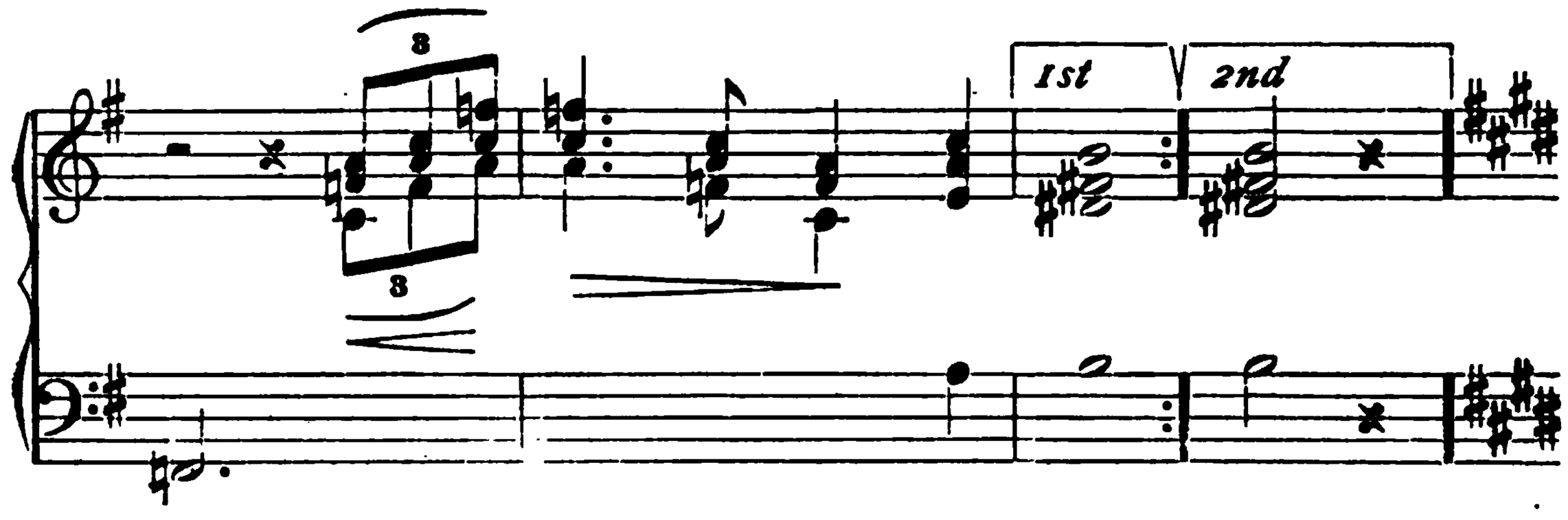
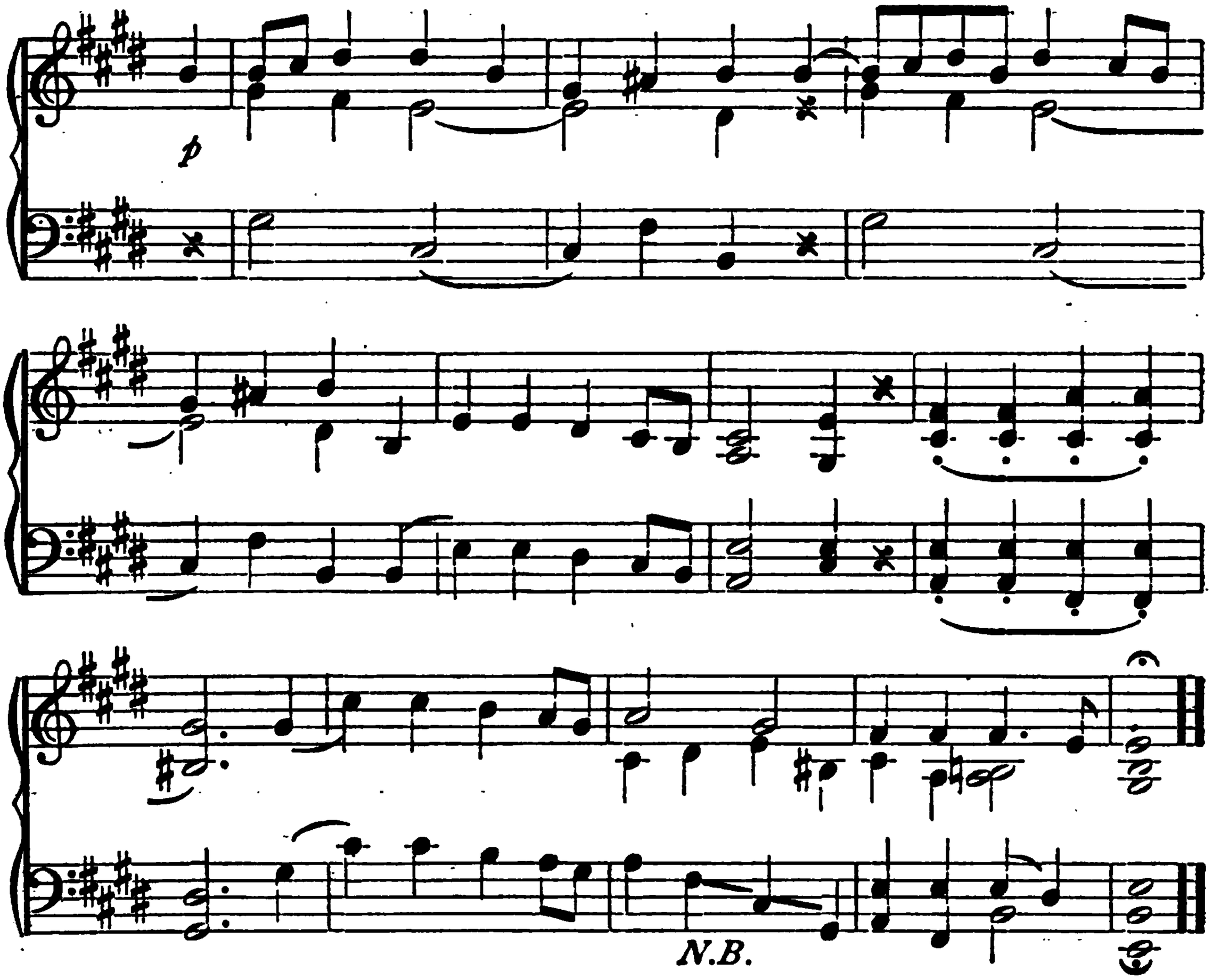
E. GRIEG, Op. 12, No. 3.

Ex. 187.



*The term *intermezzo* is also applied to short compositions, to the entr'acte, to the intermediate dances of the suite, and occasionally to a movement of a symphony. (See Goetz's Symphony, second movement.)

Intermezzo (Substitute for contrasting division)

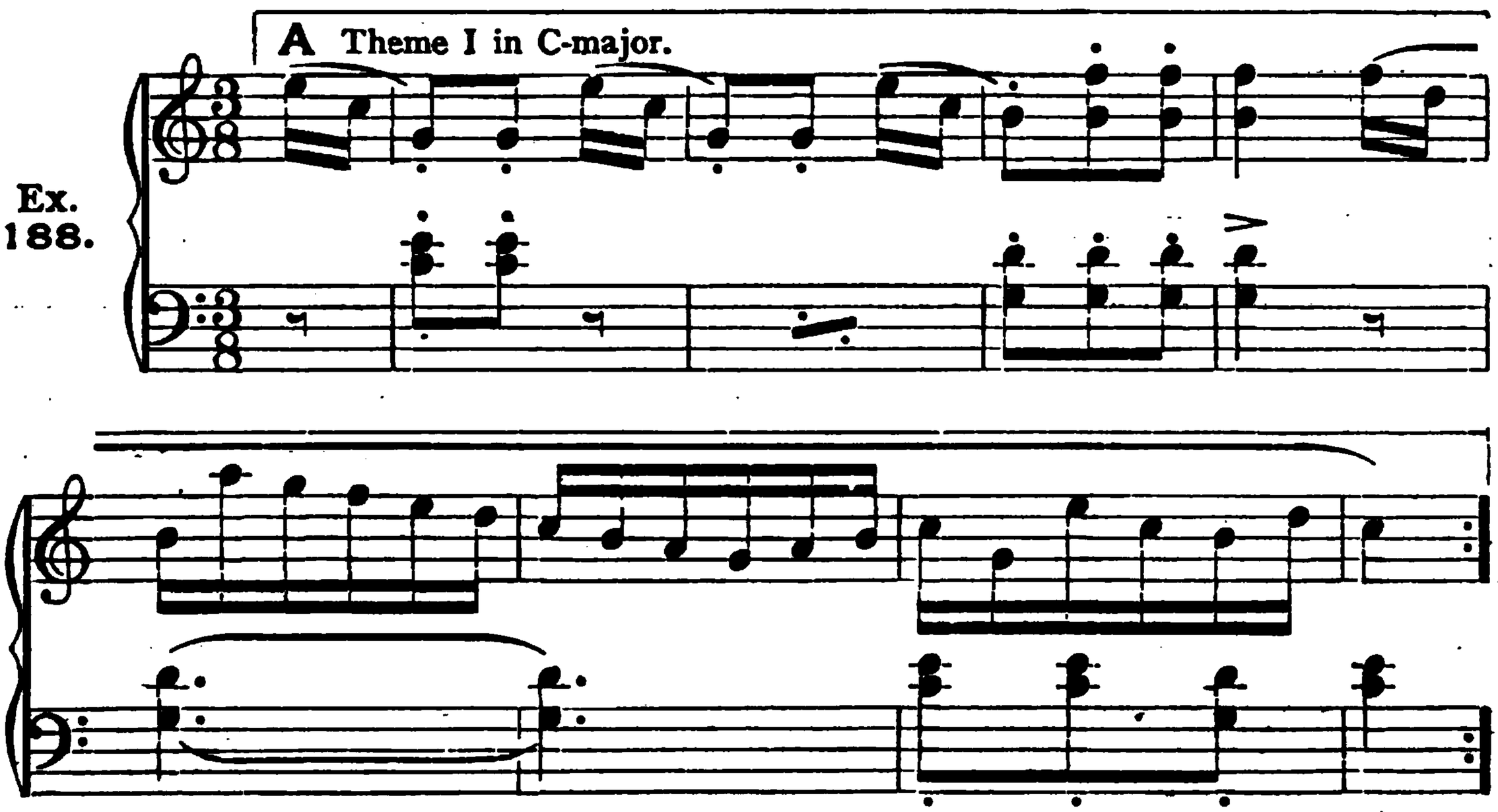


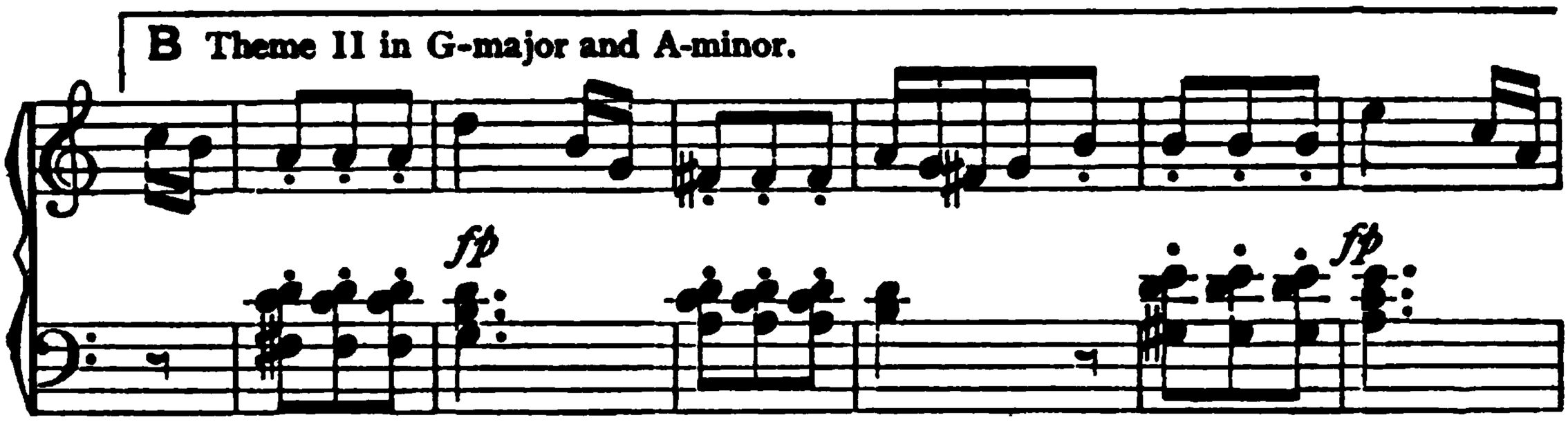
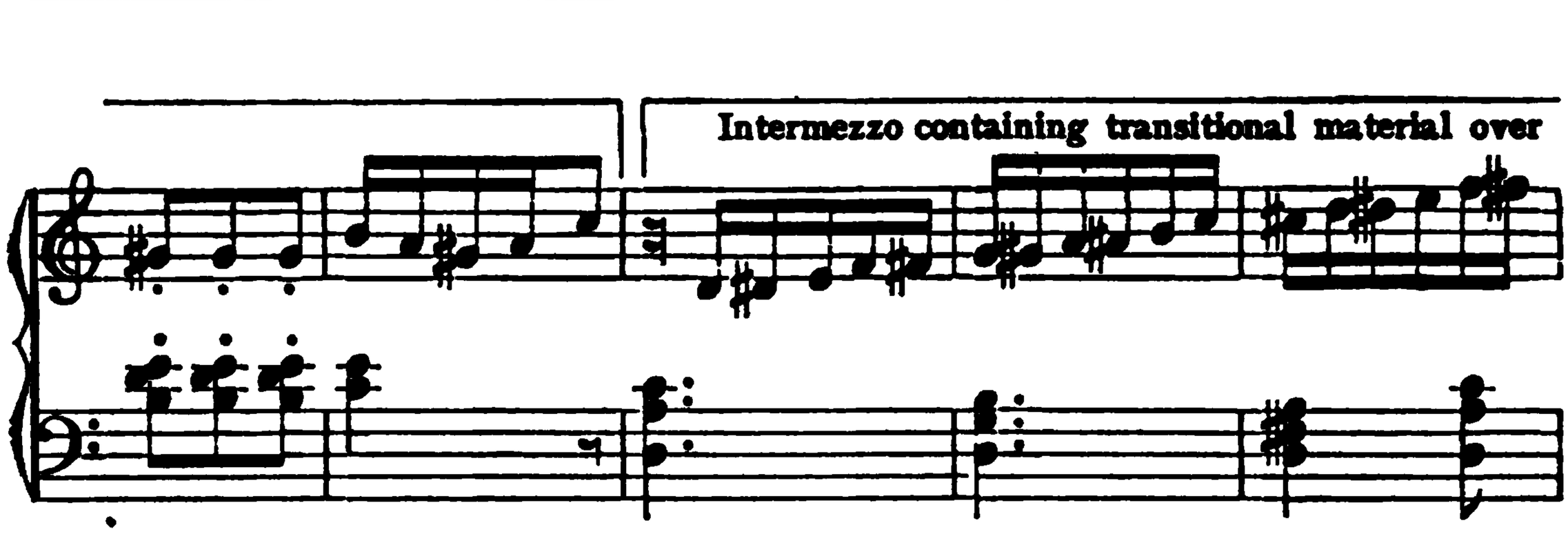


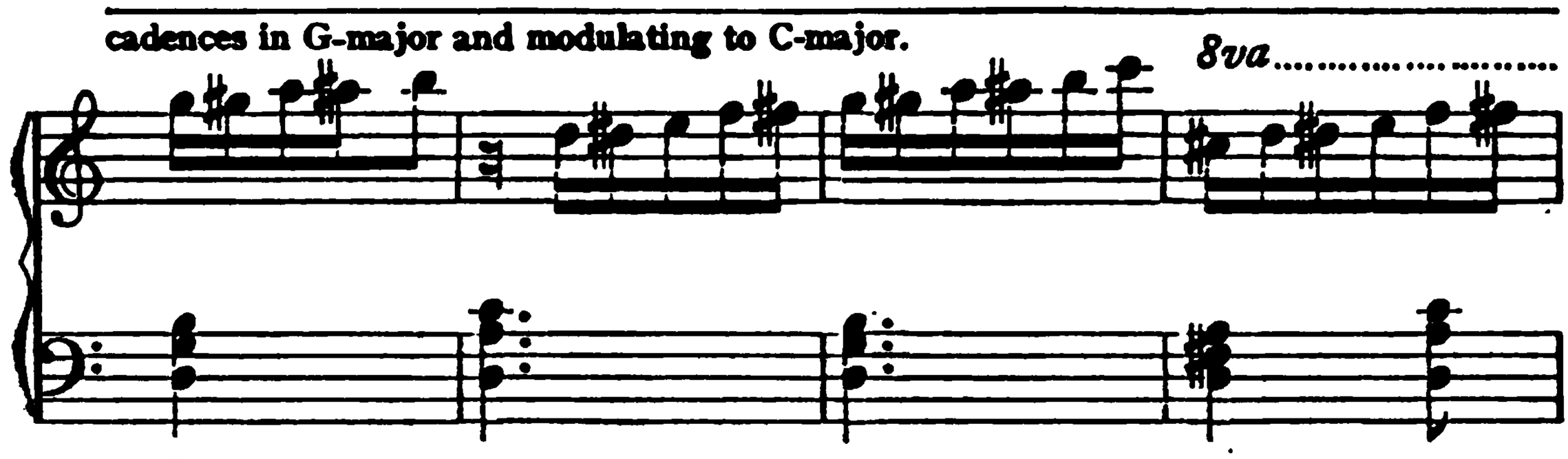
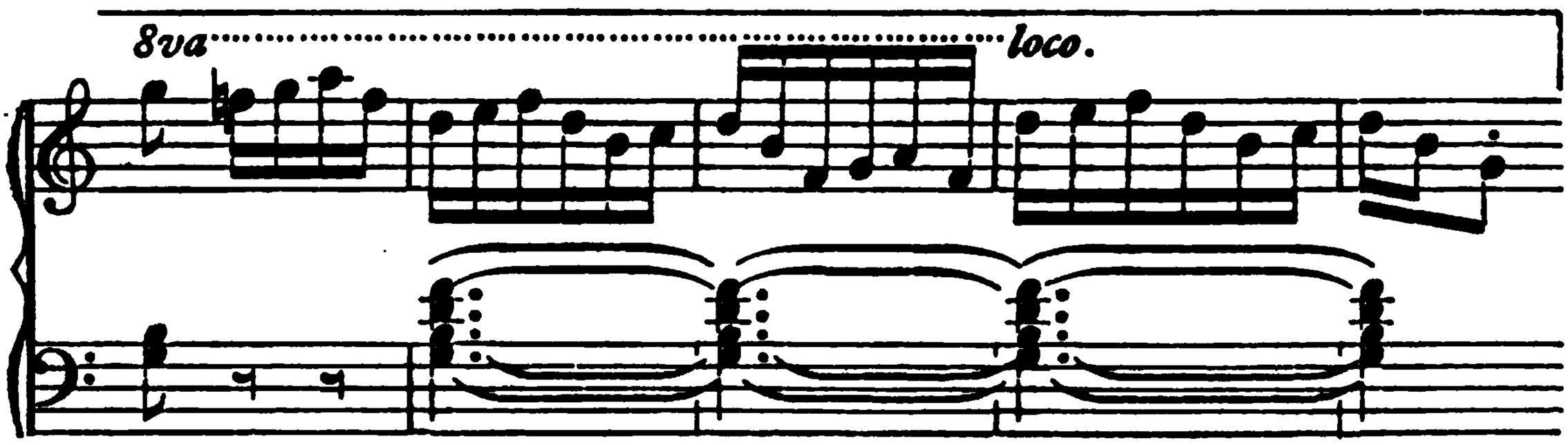
Notice the two themes before the intermezzo, the last half of the second theme is made up of material from the first theme thus making less contrast than is usual between themes. The intermezzo, however furnishes vivid contrast. The restatement after the intermezzo is made up of material from both themes and is not unlike many codas.

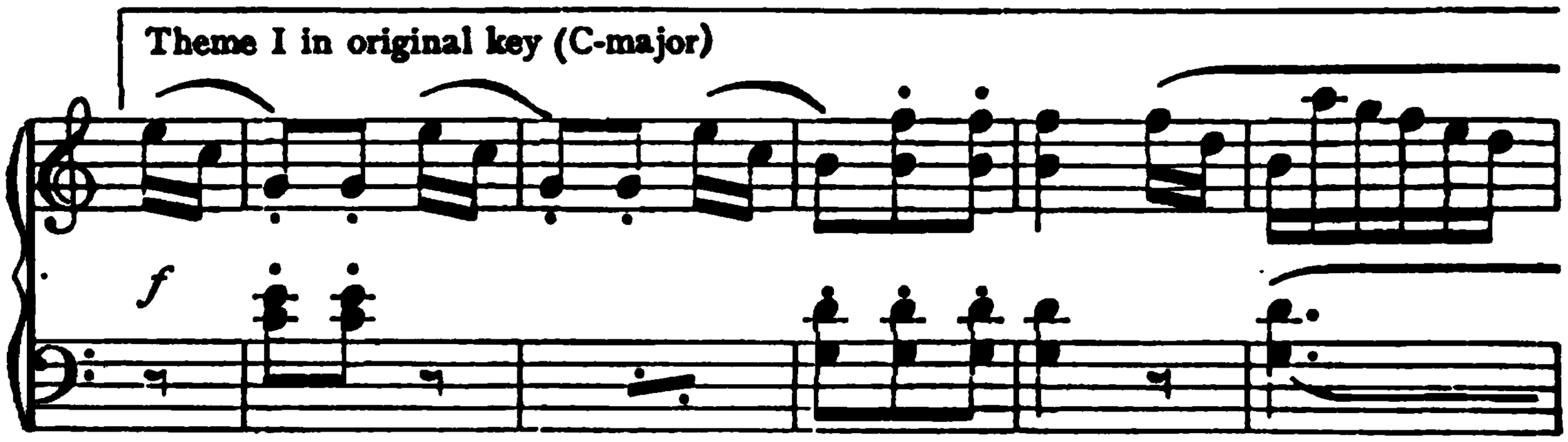
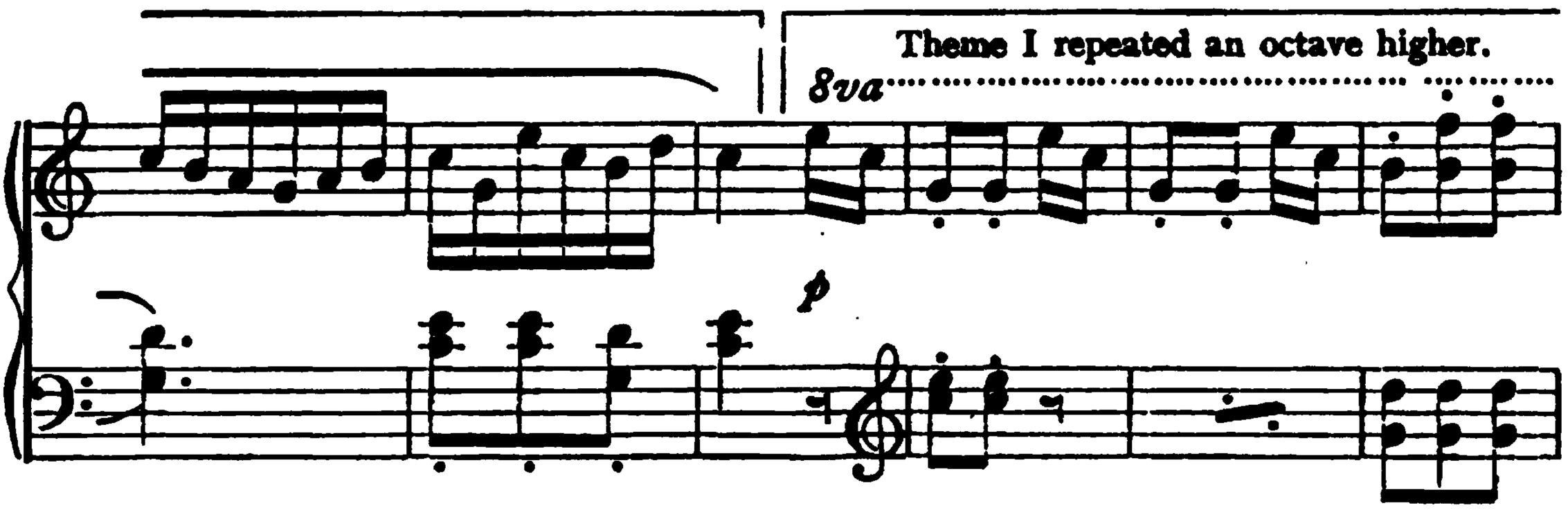
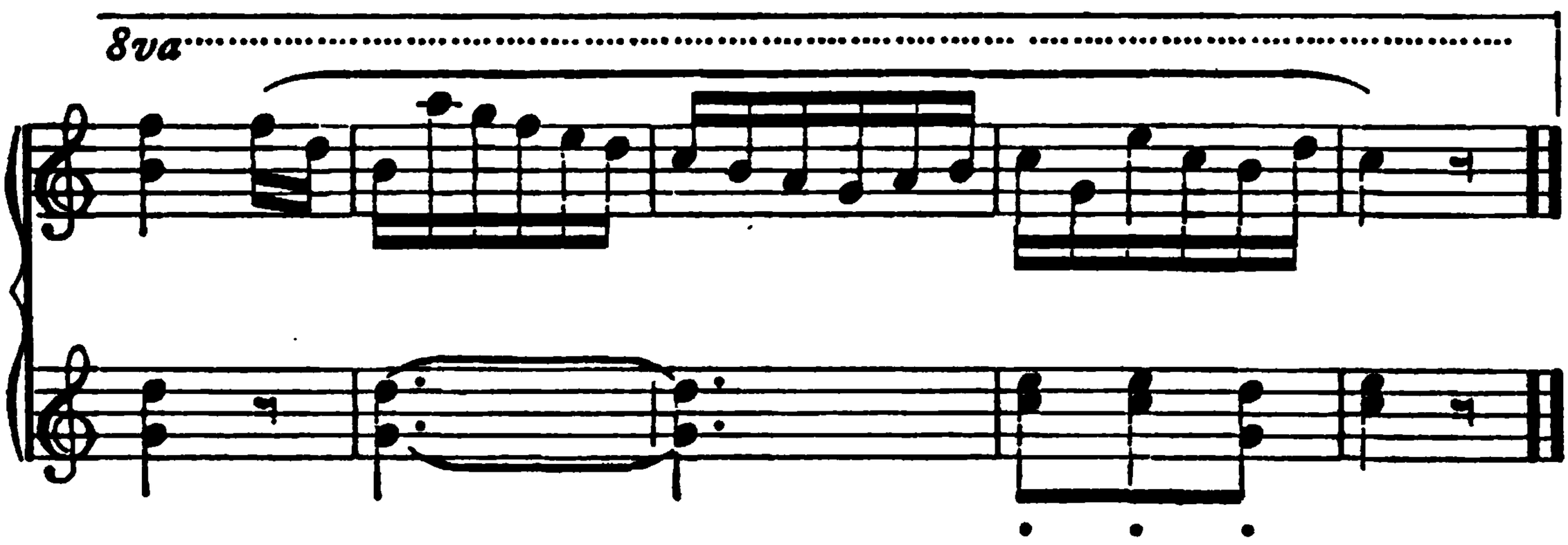
Fr. KUHLAU, Scherzo.

Ex. 188.




B Theme II in G-major and A-minor.
fp
fp

Intermezzo containing transitional material over


cadences in G-major and modulating to C-major.
8va

8va
loco.


Theme I in original key (C-major)
f



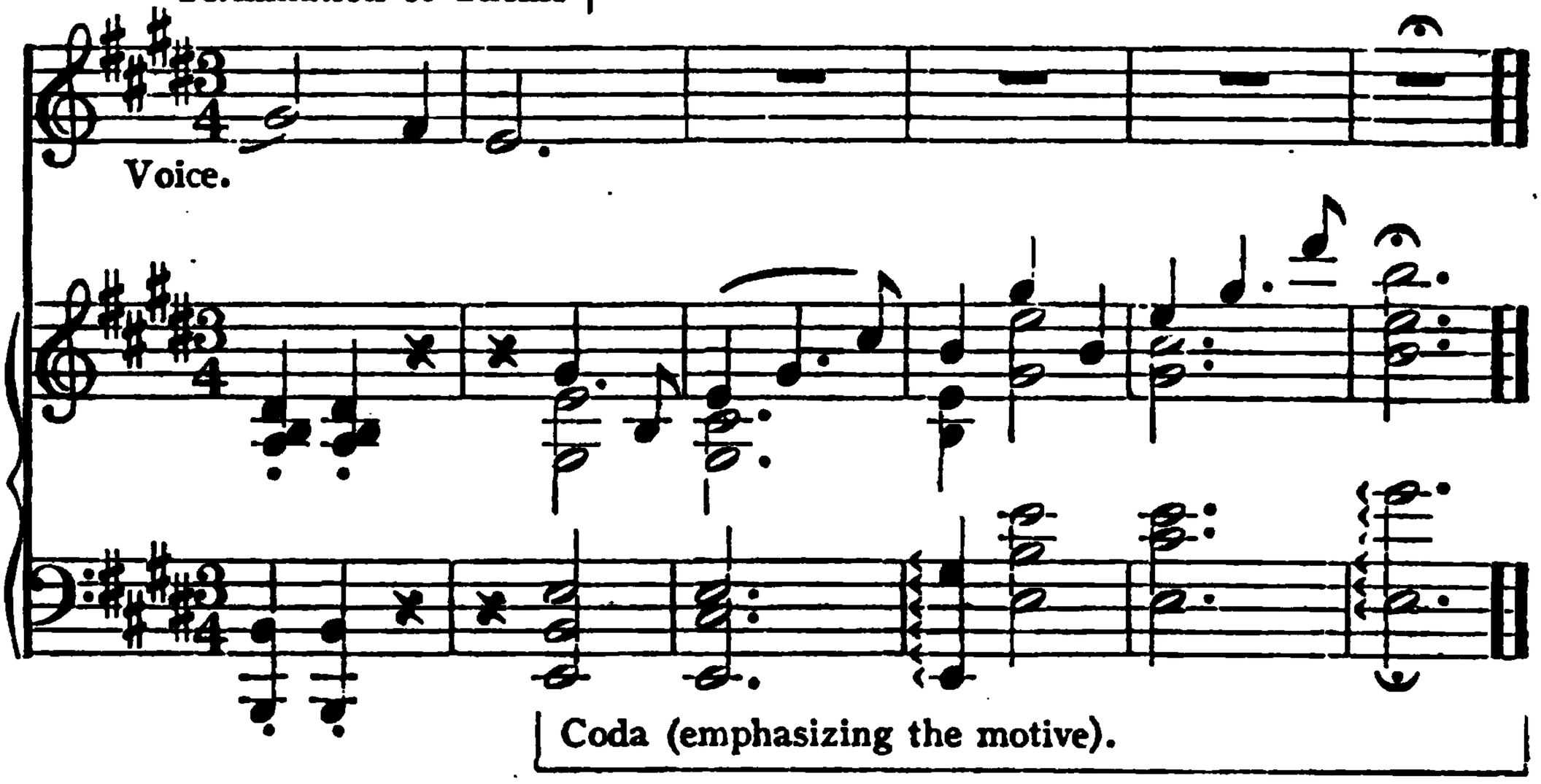
Notice that the second theme leads into the intermezzo. A group of measures of this type marked *Intermezzo* might well be analyzed as *Extended Cadences* (in this case, extension of Theme II) and is so called by some theorists.

THE EPISODE has similar functions and is similar in character to the *Intermezzo*. The Episode, however, is more melodious and partakes the character of a subsidiary theme. Episodes occur in Fugues and serve as intermediate parts between the repetitions of a fugue theme. For an example of an Episode see the Slow Movement from Mozart's String Quartet in C major commencing at the thirteenth measure and extending through the twenty-fifth. Theme II commences at the twenty-sixth measure.

THE CODA is a chordal or thematic appendage and follows the natural termination of a period, form, or movement. The functions of the coda are (1) to emphasize the motive, the final cadence, or other material, (2) to convey the composition back to the main key where the final theme ends in a different key, and (3) to summarize the material of a composition.

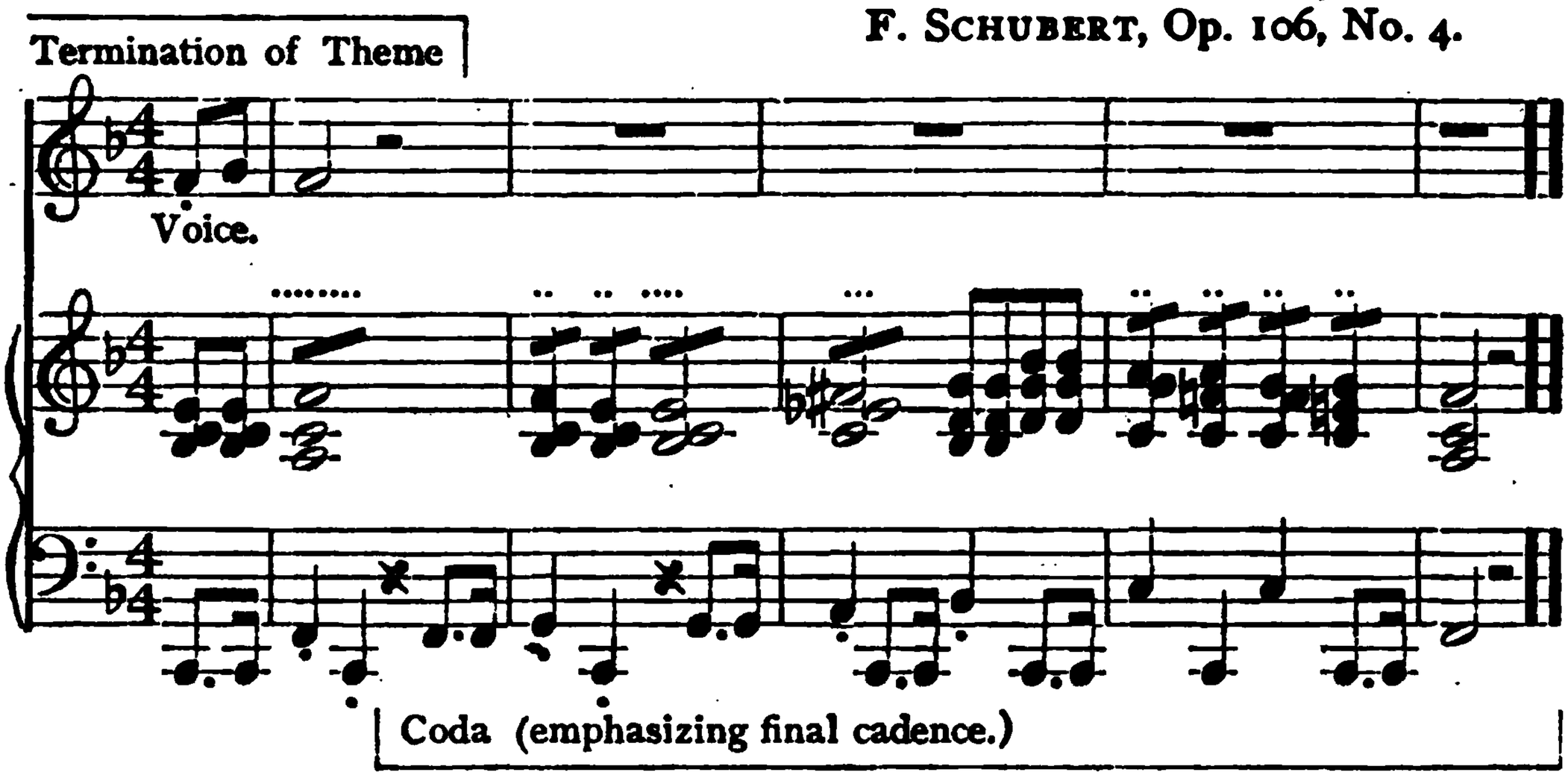
F. LISZT, *Du Bist Wie Eine Blume.*

Ex. 189.



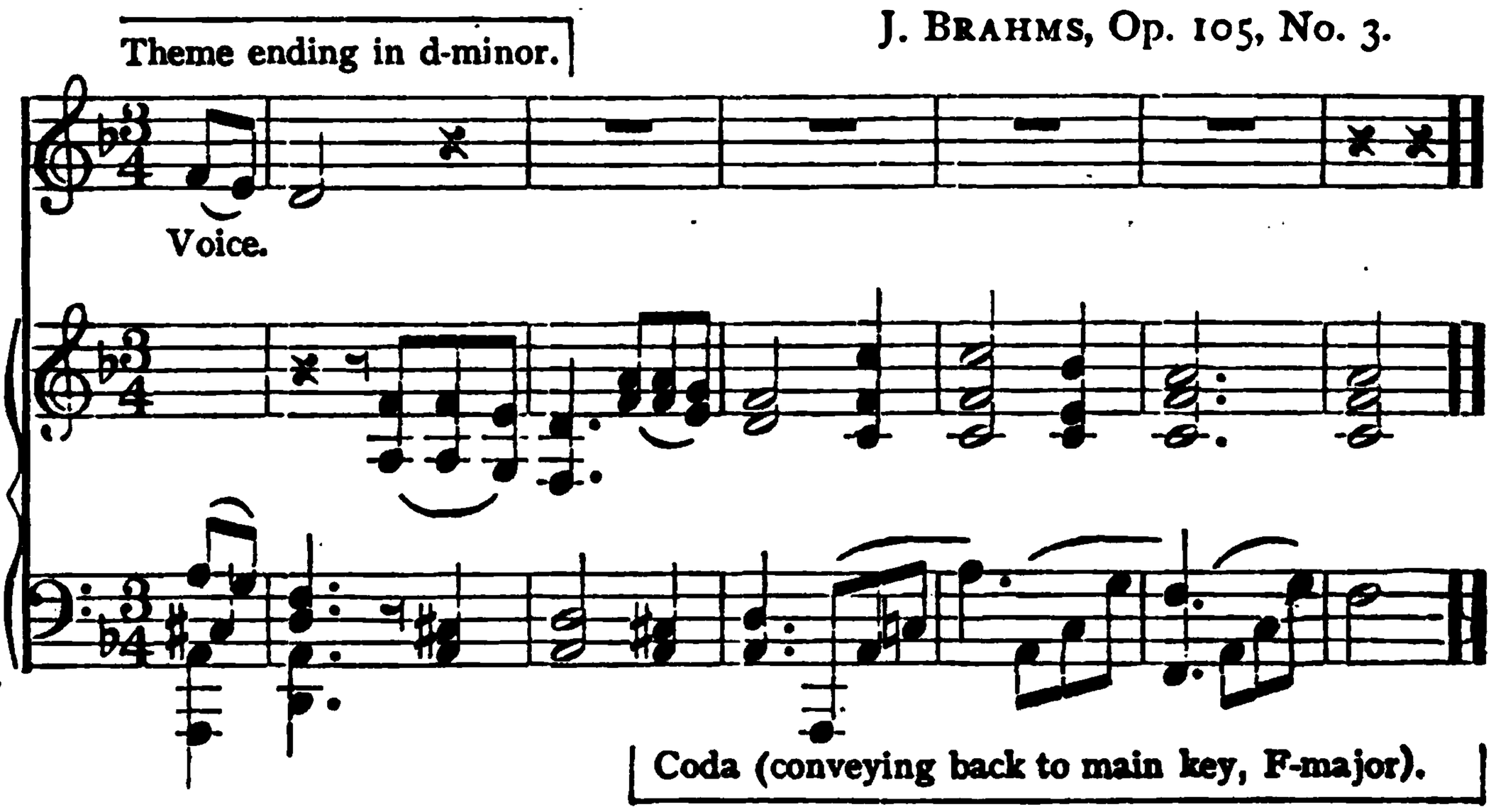
F. SCHUBERT, Op. 106, No. 4.

Ex. 190.



J. BRAHMS, Op. 105, No. 3.

Ex. 191.



The plagal close may be considered a short coda. Codas which summarize the material of a composition are usually long; for example, see codas to the orchestral waltzes of Strauss, Waldteufel, and Gungl. Beethoven was the first composer who gave great dignity to the coda in the Sonata Form and in his compositions in this Form may be found long and elaborate codas.

The work for this chapter should consist of analyzing standard compositions containing introductions, intermezzi, episodes, and codas. Original work in composition should also be done.

Exercises, Group 17.

1. Exercises 4 and 5 in Appendix B, pages 149 and 150.
2. Appendix A may be finished.
3. Write an introduction and a coda for Exercise 2, Group 14, page 100.
4. Analyze the harmony in Examples 184, 185, 186, 187, 188, 189, 190 and 191.

CHAPTER XVIII.

THE RONDO AND THE VARIATION FORM.

The Rondo is a composition consisting of a principal subject announced and recurring after contrasting sections. The early compositions in this form are primitive and consist of a subject of definite length, usually of eight measures in $\frac{2}{4}$ rhythm, ending with a perfect cadence. Between each recurrence comes a section less definite and with no apparent object in view other than to furnish contrast in tonality and aggrandize the principal subject. As the form developed, contrasting themes supplanted the indefinite section until the fully developed form culminated in the work of Beethoven. The following diagram shows the structure of a Rondo by Couperin:

Diagram 10.

A 8 measures.	B 4 measures.	A 8 measures.	C 8 measures.
Principal Subject, B♭.	Contrasting section ending in F.	Recurrence of Principal Subject.	Contrasting section in g.

A 8 measures.	D 14 measures.	A 8 measures.
Recurrence of Principal Subject.	Contrasting section in B♭ and c.	Recurrence of Principal Subject.

The following diagram shows the structure of a more highly developed Rondo; second movement of Beethoven's *Sonata Pathetique*.

Diagram 11.

A 8 measures (repeats).	B 12 measures.	A 8 measures.	C 14 measures.
Principal Subject in Ab. Repeats *8va* with varied accompaniment.	Episode in f-minor.	Recurrence of Principal Subject.	2nd Episode in ab, E, and Ab.

A 8 measures (repeats).	CODA. 7 measures.
Recurrence of Principal Subject. Repeats *8va* with varied accompaniment.	Coda.

The number of recurrences of the principal subject is not restricted with the exception that it occurs at least three times. The intervening sections may consist of contrasting themes, *intermezzi*, or episodes. The principal subject on each occurrence usually closes with a final cadence, whereas the intervening sections often lead into the principal subject or pause on a semi-cadence. The principal subject is occasionally varied in its several recurrences, often appears with varied accompaniment, sometimes with change of harmony, and is occasionally extended.

In the highly complex Rondo Form may be found transitional measures, passage work, elaborate extensions, and codas between the various divisions of the composition. The third movement of Beethoven's *Sonata Pathetique* shows great complexity in structure and the student should analyze the harmonic and formal structure of this movement.

The Variation Form.

The Variation Form is a term applied to a composition in which one or more themes is presented and re-presented in variously differing styles.

The older examples of the Variation Form were principally concerned with a ground bass which served as a basis for building subsequent variations. The most highly developed example of this style is to be found in J. S. Bach's *Variations on an Aria in G Major* which is a Sarabande with thirty variations. Here, Bach used the harmonic structure of the Aria as a basis on which he built, contrapuntally, thirty contrasting movements.

Later, a theme as well as a ground bass served as a basis upon which variations were built. In some cases, we find contrasting themes (see Haydn's *Andante with Variations in F Minor*) serving of which the first is the most important and therefore most thoroughly worked out. Episodes, introductions to variations, cadenzas, intermezzi, etc., made their appearance as well as elaborate codas, and to-day we have a highly complex form which exists as a complete opus number or as a movement of a Sonata or Symphony.

The Rondo and Variation Forms are sometimes combined. For such an example, see Haydn's *F Major Sonata* for violin and clavier (slow movement) which should be analyzed.

Some of the principal ways in which a theme may be varied follow: (1) by changing the style of the accompaniment; (2) by changing the harmonization of the theme; (3) by writing a new theme to the harmonization of the principal theme; (4) by changing the length of the various notes thereby obtaining a new rhythm and often a new metre; (5) by repetition of certain notes which may or may not change the metre; (6) by introducing tones ornamental to the tones of the theme, scale passages, passing tones between the tones of the theme, etc.; (7) by obscuring the theme by arpeggio figuration of the tones of the theme; (8) by inverting the intervals of the theme; and (9) by expanding or contracting the intervals in the theme.

A lyrical theme lends itself less readily to the Variation Form than an epic-like theme with potentialities.

Contrapuntal technique is necessary to successful results in many cases, but fairly good results in the ways of varying a theme such as are listed above may be obtained without such knowledge.

The work for this chapter should consist of analyzation of standard compositions in the Rondo Form and in the Variation Form. A theme should be chosen and worked out in variations in the various ways enumerated in this chapter. Original composition work in the Rondo Form and Variation Form may be done.

Exercises, Group 18.

1. Exercises 6, 7 and 8, Appendix B, pages 150 and 151.
2. Compose a theme; harmonize and treat it in a manner similar to Diagram 10, page 125.
3. Compose a theme of at least eight measures; harmonize and write five or more variations.

CHAPTER XIX.

THE SONATA FORM.

As the form grows more complicated, the need of contrapuntal skill becomes more apparent and this need manifests itself when considering the Sonata Form. The Sonata Form is the most complex of all the forms and requires the greatest amount of technique. This chapter, therefore, aims only to the equipping of the student with knowledge sufficient to the analyzation and appreciation of the Sonata Form.

The term "Sonata" is applied in three different ways. Previous to the work of Philipp Emanuel Bach (1714–1788), the term was used loosely and meant almost any kind of a composition for instruments in contradistinction to the cantata. To-day, the term is used more definitely and is applied to a composition for solo instrument (usually in four separate movements) based on more conventional lines. Thirdly, the term is applied in conjunction with the term "Form" (Sonata Form) to signify a certain structure of one or more of the movements of a Sonata.

The modern Sonata usually consists of four separate movements, each of which is a complete form but all of which constitute a whole with more or less interrelationship between the various movements. The common disposition of the movements is: 1st movement, Allegro; 2nd movement, "Slow"; 3rd movement, Minuet or Scherzo; 4th movement, Allegro. The first movement is frequently preceded by an introduction usually in slow tempo. The first movement is in Sonata Form. The following movements may be in Sonata Form or in any of the forms heretofore considered. A composition for orchestra similar to the Sonata is called a *Symphony*. The Sonata and Symphony sometimes consist of three movements.

The Sonata Form is, in a broad sense, Three-Part Form. The first part (A) is called "Exposition," the second part (B), "Development," and the third part (A) Recapitulation. The Exposition consists of two or more themes in contrasting keys; the Development consists of an unfolding of the latent possibilities in the motives of the themes in a transitional manner; the Recapitulation consists of a restatement of the themes of the Exposition with emphasis upon the main key. A common tonal scheme of structure is shown in the following diagram:

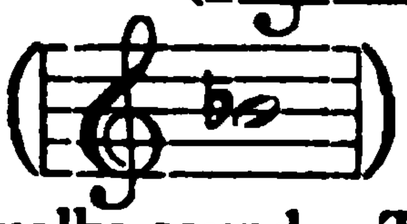
Diagram 12.

A Exposition.	B Development.	C Recapitulation.
Statement of two themes 1st theme in main key 2nd theme in contrasting key. (*Dual Tonality.*)	Development of the themes in various keys. (*Plural Tonality.*)	Restatement of the themes both of which are in the main key. (*Mono-Tonality.*)

Transitions, may, of course, occur. Not infrequently the Recapitulation is in two contrasting keys, the first theme usually in the subdominant of the main key and the second theme in the main key. Notice that such a tonal scheme results in the reappearance of both themes in different keys from those in which they appear in the Exposition. The Development section is the most complicated part of the movement and is the least rigid. Oftentimes it partakes the character of a free fantasia. Here, new musical thoughts germinate from the original motives and more or less chaotic tonality occurs, giving us contrast and variety. The return at Recapitulation to the themes in their original form with emphasis upon the main key rounds up the movement and gives us unity. Subsidiary themes, episodes, passage work of rhapsodical, transitional, or cadencial material, repetition of themes (sometimes varied, sometimes verbatim), conclusion themes and codas are frequently found in the movement.

Overtures, movements of trios, quartets, quintets, and concertos are written in Sonata Form.

For a specific example of the Sonata Form, the first movement of Beethoven's Symphony No. 3 in E-flat (*Eroica*, Op. 55) is chosen for brief analysis.*

In analyzing an orchestral score, notice must be taken of the fact that the clarinets, horns, and trumpets are "transposing instruments" and are written transposed; for example: written c for the B-flat Clarinet or B-flat Trumpet really sounds b-flat  therefore the tones are notated a major second higher than they actually sound. The written scale of c for an e-flat instrument actually sounds the scale of e-flat, etc. All strings, flutes (in orchestrations), oboes, English horns, bassoons, tubas, and trombones (when in the bass or c-clefs) are written "concert," that is, according to the tones they sound. Trombones written in the g-clef, however, are treated as transposing instruments in b-flat.

*The orchestral score to this Symphony should be in the hands of the student that he may analyze the harmonic progressions as well as to assist him in his analysis of the Form. An inexpensive miniature score is obtainable in the Payne Series published by Ernst Eulenberg, Leipzig, and is for sale by most large music dealers.

The Symphony (*Eroica*) is scored for two flutes, two oboes, two clarinets (in b-flat), two bassoons, three horns (in e-flat, but changing), two trumpets (in e-flat), tympani, double bass, and quartet of strings.

Theme 1 which is the chief theme is sounded by the cello *piano* but introduced by two *forte* tonic chords by full orchestra. The motive is tossed around among the different instruments until the entrance of a subsidiary theme at the forty-fifth measure. This theme starts with dominant harmony in the key of b-flat preceded in the forty-fourth measure by augmented sixth chords. The tonality of b-flat is only vaguely established and at the sixty-fifth measure a connecting transitional passage leads to the second theme proper (which is in the key of b-flat major) at the eighty-third measure. At the one hundred and ninth measure a passage founded upon the rhythm and ideas of the principal and subsidiary themes commences. Notice at the one hundred and twenty-third measure the dissonant chords upon the weak beats which obscure the tonality until at the one hundred and twenty-eighth measure the dominant seventh chord in its first inversion in the key of f enters and is reiterated *forzando* for four measures. The rhythm in these four measures is, in effect, two-four. At the end of the Exposition the material of the long coda which ends the movement is foreshadowed. The Exposition now repeats *verbatim*.

The Exposition does not end with a final cadence but coalesces with the Development. The Development consists of the unfolding of the potentialities of the first theme and the subsidiary theme. The material of the second theme is very little used which is an unusual circumstance in a Development. The transitions are radical and interesting; note, especially, measures 181 to 185. The radical dissonances also deserve study, for example, measure 248 to 279 and elsewhere, but above all, measures 394 and 395 where the horn sounds the tonic chord in E♭ major while the violins sound the dominant seventh chord. This place has caused much discussion and many amusing anecdotes and mistakes on the part of musicians and publishers. An Episode in E-minor commences at measure 284. This episode reappears at measure 322 in E-flat minor. At measure 338, theme 1 reappears for further development and evolves, transitionally, to a *fortissimo* climax for full orchestra at measure 362. Fragments of theme one are heard on a *diminuendo* until at measure 394, theme 1 is heard in the horn with the radical accompaniment mentioned above. This is followed by a modulation to F-major, the horn again sounding theme 1 but this time in F (measure 408). At measure 416 the first violin and flute sound theme 1 in D-flat (measure 409).

The Development and Recapitulation coalesce and the first theme appears in E-flat major. The Recapitulation differs in many respects from the Exposition but not sufficiently to destroy unity. The Subsidiary theme reappears at measure 448 but this time on the dominant harmony in E-flat. The connecting transitional passage commences at measure 468 but this time a fifth lower than in the Exposition. The second theme enters at measure 468 in E-flat. Compare the passage of dissonances commencing at measure 526 with the passage in the Exposition (commencing at measure 123).

The Coda commences at measure 552 coalescing with the Recapitulation. It is an example of one of Beethoven's contributions to the Sonata Form and is not a mere termination or appendage but a complex part of the movement. Notice that the principal theme is sounded first upon the E-flat chord, then upon the D-flat major chord, and thirdly upon the C-major chord. No modulating chords are used until measure 569. Here the dominant harmony in C-major is insisted upon until measure 573, where instead of resolving, it progresses to the dominant harmony in the key of F. At measure 595 a new melodious passage in chromatic and lyric-like style enters, sounded by cello and bassoon in unison. Commencing at the *crescendo*, measure 627, we are led back to the main tonality, and from here to the end of the movement the key of E-flat domineers with only occasional and temporary transitions. Notice the insistence upon dominant harmony in the home key commencing at the syncopation, measure 681, and continuing through the fourth measure from the end.

A diagrammatic illustration of the structure of *Eroica* follows:

Diagram 13.

Introduction or Prelude.	A Exposition.	B Development.	A Recapitulation.	Coda.
Two tonic chords (E♭) introducing main theme.	Principal theme in E♭, Subsidiary theme in B♭, Second theme in B♭. Transitional and Rhapsodical passages. (Dual Tonality with transitions).	Development of the principal and subsidiary themes. Episode. (Plural Tonality.)	Restatement of themes and passages of the Exposition. Themes in E♭. (Mono-Tonality with transitions.)	Further development and restatement of themes bringing the movement to a close in E♭.

The student should analyze the harmony and form of several movements in Sonata Form. The Beethoven pianoforte sonatas are excellent for this. These may be obtained in inexpensive editions.

CHAPTER XX.

THE MIXED AND FREE FORMS.

The *Pot-pourri* or Medley consists of a selection of themes from an opera, folk songs, or national songs, etc., strung together in contrast to one another. Operatic medleys usually consist of a selection of the most popular tunes of a single opera although occasionally one finds a selection consisting of tunes from various operas. The pot-pourri has no set form and no value other than a sensuous one.*

The following diagram shows the disposition of the movements in a selection from Mascagni's *Cavalleria Rusticana* together with the key scheme:

Diagram 14.

A	Introduction. Andante sostenuto. $\frac{4}{4}$	F Major.
B	Siciliana. Andantino. $\frac{6}{8}$	f Minor.
C	Interlude. Tempo. $\frac{2}{4}$	Modulatory.
D	Chorus. Allegro giocoso. Valse. $\frac{3}{4}$ and $\frac{6}{4}$	A Major. Modulates to e Minor.
E	Alfio's Song. Allegretto. $\frac{3}{4}$	e Minor and E Major.
F	Church Scene. Moderato assai. C and $\frac{12}{8}$	e Minor. Modulates to F Major.
G	Lola's Song. Allegretto. $\frac{6}{8}$	F Major.
H	Andante appassionato. $\frac{6}{8}$	A Major.
I	Intermezzo Sinfonico. Andantino sostenuto. $\frac{3}{4}$	F Major.
J	Interlude. Allegro Moderato. $\frac{2}{4}$	Modulatory.
K	Drinking Song. Larghetto. $\frac{3}{4}$	G Major.
L	Termination, ending the selection in	G Major.

The *popular overture* is frequently in the style of a pot-pourri, but in this case the themes are original. Such an overture as Suppe's *Poet and Peasant* has more unity, however, than most operatic, national, and folk medleys. The following diagram shows the disposition of the movements of *Poet and Peasant.*

*The pot-pourri lacks unity which is a necessary quality of all arts.

Diagram 15.

A	Lyrical Introduction. Andante Maestoso. $\frac{4}{4}$	D Major.
B	Intermezzo. Allegro strepitoso. $\frac{4}{4}$	Modulatory.
C	Allegro, $\frac{3}{4}$, terminating transitionally	d minor and B♭ Major.
D	Allegretto. $\frac{4}{4}$	B♭ Major.
E	Allegro. $\frac{3}{4}$, terminating transitionally	B♭ Major.
F	Intermezzo. Sostenuto. $\frac{4}{4}$	Modulatory.
D	As before.	As before.
E	As before, except the terminating measures which bring to a close in B♭-major	B♭ Major.

The Fantasia is a composition in which the composer gives free scope to his fancy or imagination. The form is wholly free, but unity is maintained by various devices such as the persistence of motives, characteristic rhythmic and harmonic figures, etc. In many of the instrumental works of the early composers, including those of the early English, and, later, those of J. S. Bach, may be found the older application of the term. The principal characteristics of the early Fantasias was the development of a theme by free imitation. Since then, the term has come to be applied to the development section of the Sonata Form, as well as frequently and inexcusably to the pot-pourri. Interesting Fantasias may be found in the works of Mozart, Beethoven, Schumann, and in those of our present day composers.

Program Music.

Program music is instrumental music, the mood, form and context of which is determined either by its title or by a description printed upon the composition, rather than by abstract musical formalities. Although the older composers including Kuhnau, Bach, Couperin and Rameau, wrote a few small works of this kind, Program Music did not become a common style until the Romantic Period.

The comparatively late development of Program Music was due principally to the inadequacies in the media of expression, the immatured state of instrumental music, the bigotry of musical theorists, and the environment and lack of breadth in the education of the so-called Classicists.

In the Pastoral Symphony, Beethoven opened new paths and since its production the list of programmatic music has grown, and much of the best music is now either realistic, characteristic, or descriptive.

Modern composers seem to preter a definite inspiration to a more or less prosaic weaving of tones. They desire to express in their music the emotions of their inner life whether kindled by literature, a mood, vision, object, event, philosophy, or picture. To a specific inspiration, a composition of this type owes its form.

The form being empirical and governed by the specific inspiration necessitates concrete study, and no better examples for such study can be had than the Symphonic Poems of Liszt and his successors.

For the benefit of those students who cannot obtain scores of Symphonic Poems, a brief analysis of a Symphonic Poem is given.

Les Preludes, FRANZ LISZT.

The composition is founded upon a portion of Lamartine's *Meditations*, a prose translation of which follows:

What is our life but a series of Preludes to the unknown song, the first solemn note of which is sounded by death? Love is the enchanted dawn of every life; but what is the destiny where the first joys of happiness are not interrupted by some storm, whose fatal breath dissipates its fair illusions, whose fatal lightning consumes its altar? And where is the wounded spirit that does not seek, when one of its tempests is over, to calm its memories in the peaceful life of the country? Yet man cannot long resign himself to the kindly monotony which first charmed him in his companionship with Nature, and when "the trumpet's loud blast has called him to arms," he rushes to the point of danger, regardless of the nature of the strife, in order to gain, by combat, possession of his strength.

The Symphonic Poem is scored for 3 flutes, 2 obpes, 2 clarinets, 2 bassoons, 4 horns, 2 trumpets, 3 trombones, bass tuba, tympani, drums, cymbals, harp, and the usual strings.

The composition may be divided arbitrarily into six parts played, however, without pause. Each part depicts a different phase of Lamartine's poem, but the whole is founded principally upon two themes which appear in various melodic, harmonic, and rhythmic guises. A diagram follows:

Diagram 16.

1st Division	**1ST THEME** Recitative for strings. Motive answered by wood wind (Andante $\frac{4}{4}$). Leads upon a *crescendo* to a new form of the same theme (Andante maestoso $\frac{12}{8}$) sounded by bass strings, bassoons, trombones, and tuba. Leads upon a *diminuendo* to a third form of the theme ($\frac{4}{4}$) sounded by second violins and cellos with an echo in basses and bassoons at the end of each phrase. Modulates to E-major, followed by transition.	C Major
2nd Division	**2ND THEME** Sounded by horns and violas (C–$\frac{12}{8}$). Reappears: oboes, clarinets, and bassoons; developed to a climax. Reminiscences of theme 1 in horns, flutes, and clarinets.	E Major
3rd Division	**DEVELOPMENT** Principally of theme 1 (Allegro ma non troppo $\frac{4}{4}$ and Allegro tempestuoso $\frac{12}{8}$). Suggests storm. Quiets down leading to the next theme.	Plural Tonality
4th Division	**3RD THEME** (Allegretto pastorale $\frac{6}{8}$). Figures of the theme sounded first by horn, then oboe, followed by clarinet, and then tossed around: Reappearance of motive of theme 2.	A Major
5th Division	**RESTATEMENT OF 2ND THEME** In violins, then in horns and violas, followed by wood wind and horns. Developed transitionally leading to the next division.	A Major and C Major
6th Division	**FREE RECAPITULATION** (Allegro marziale, animato $\frac{4}{4}$). Theme 1 sounded by horns and trumpets, answered by low strings and trombones. Developed to a union with 2nd theme. Theme 2 in a new rhythm and mood sounded *fortissimo* by wood wind, horn, and violins. Sudden transitions. Reappearance of theme 1 in a former guise sounded by basses, bassoons, trombones, and tuba ($\frac{12}{8}$). Ends *fortissimo* with full orchestra.	C Major

APPENDIX A.

MELODIES FROM BACH'S CHORALS.

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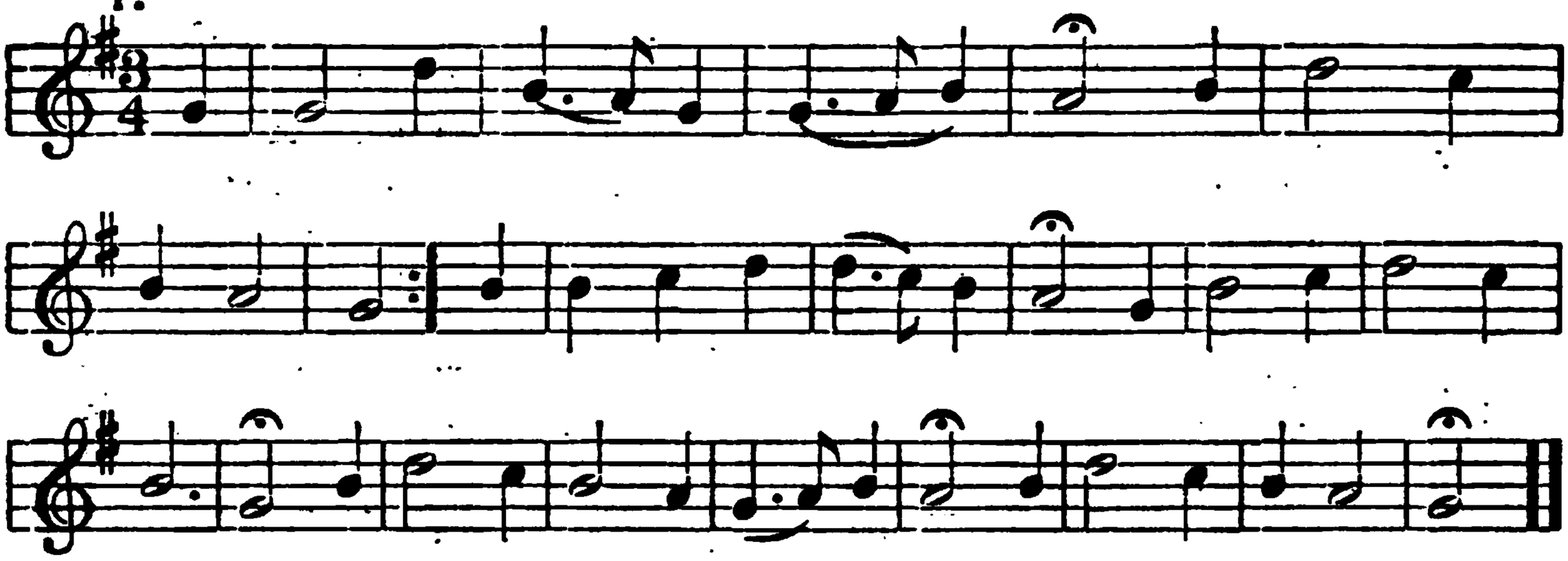

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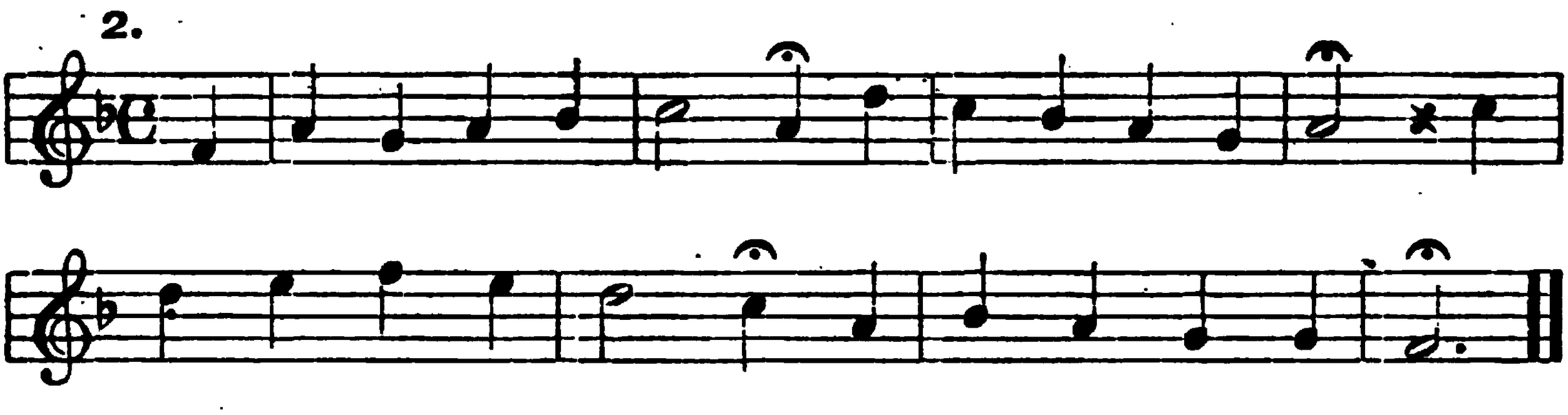
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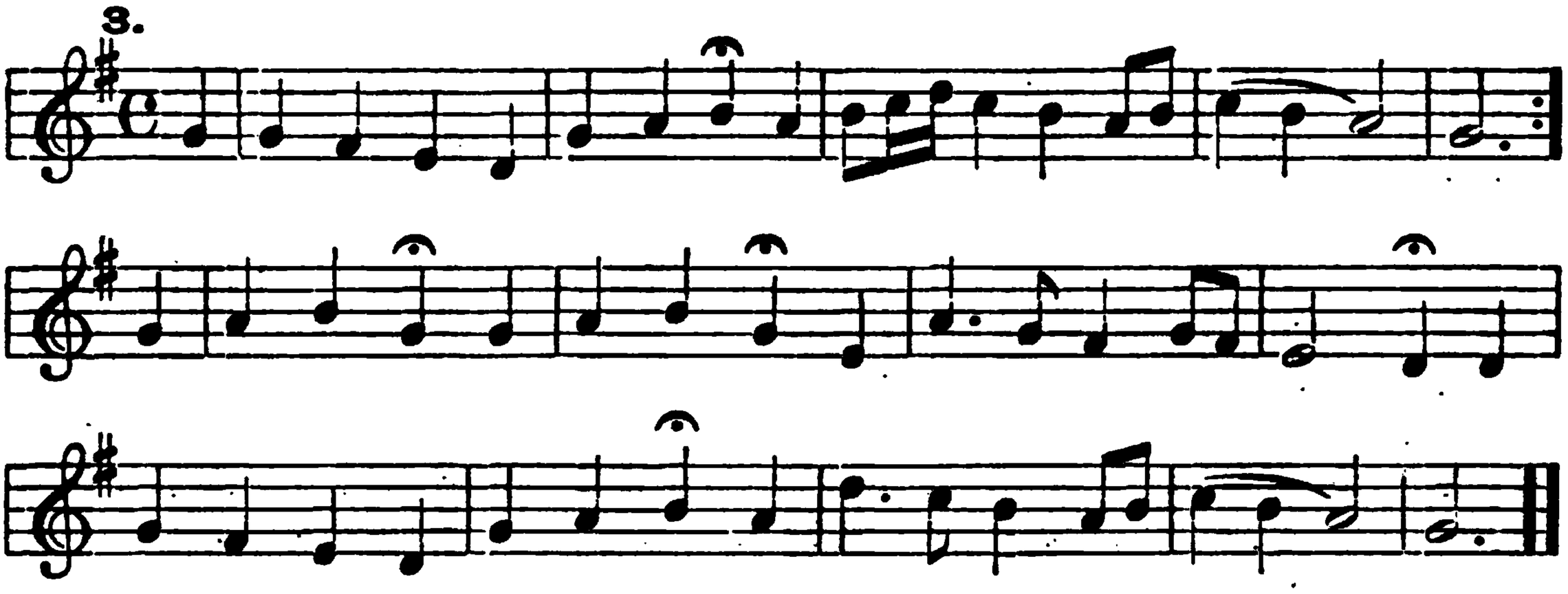
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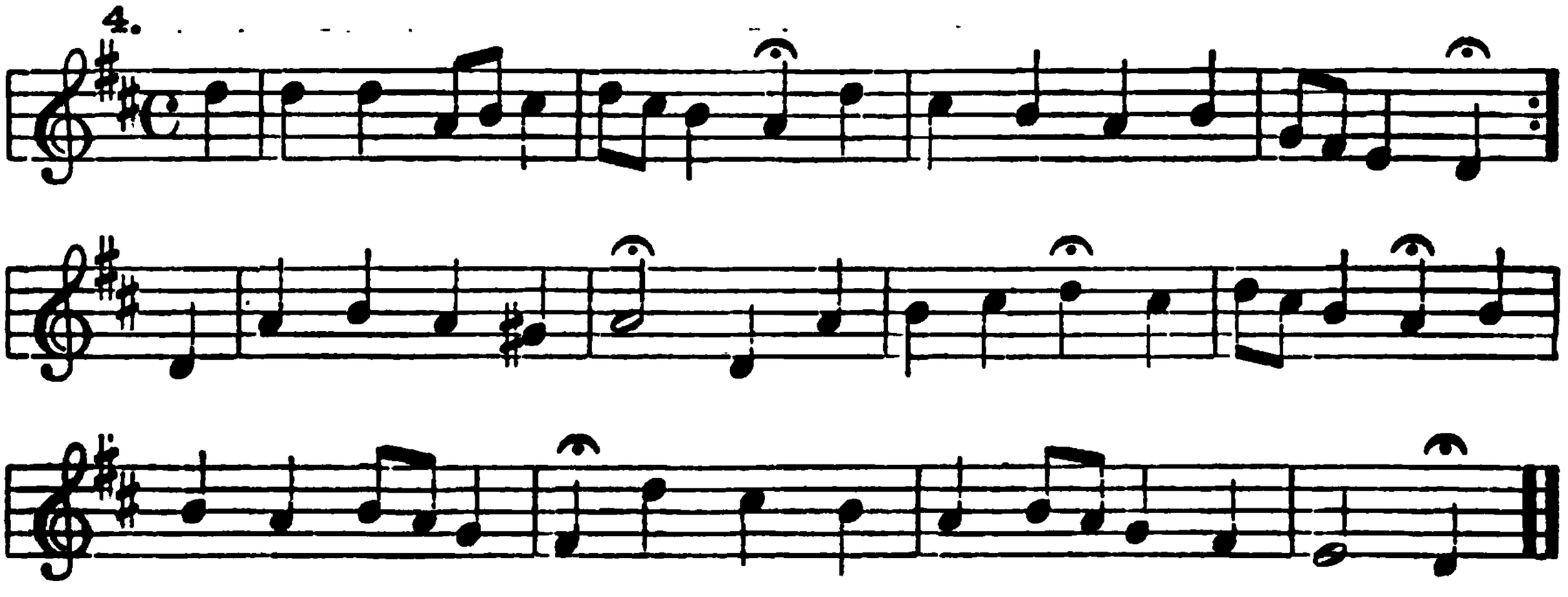

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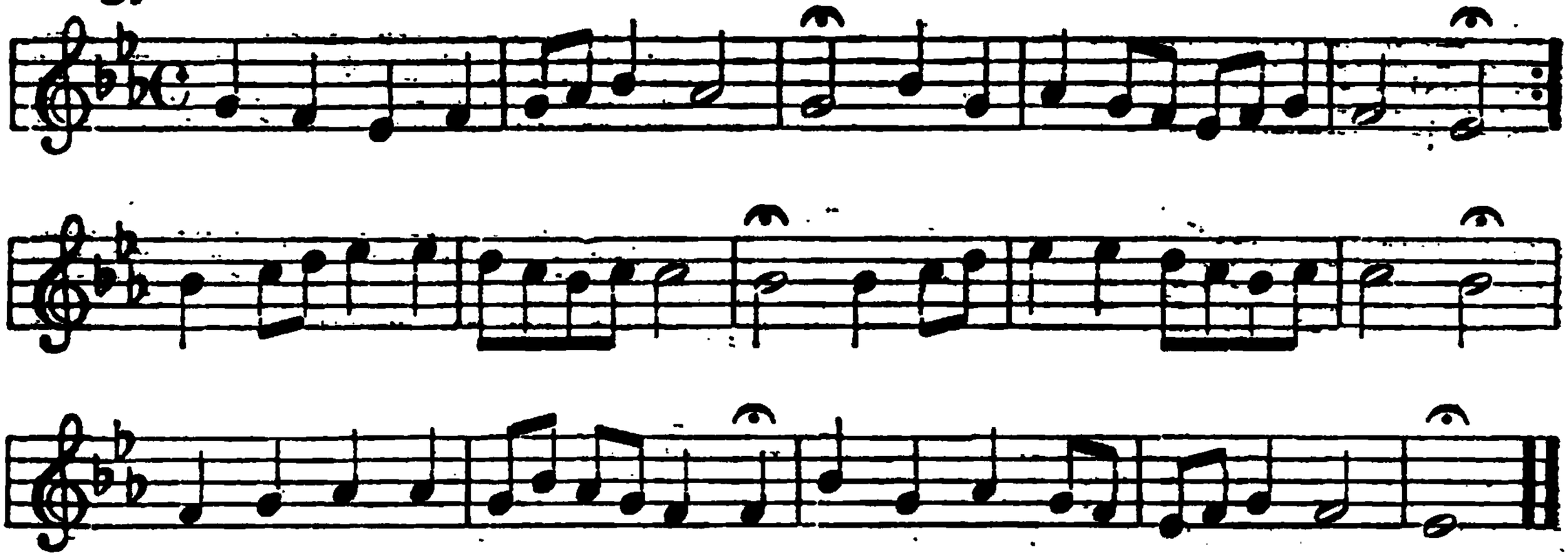
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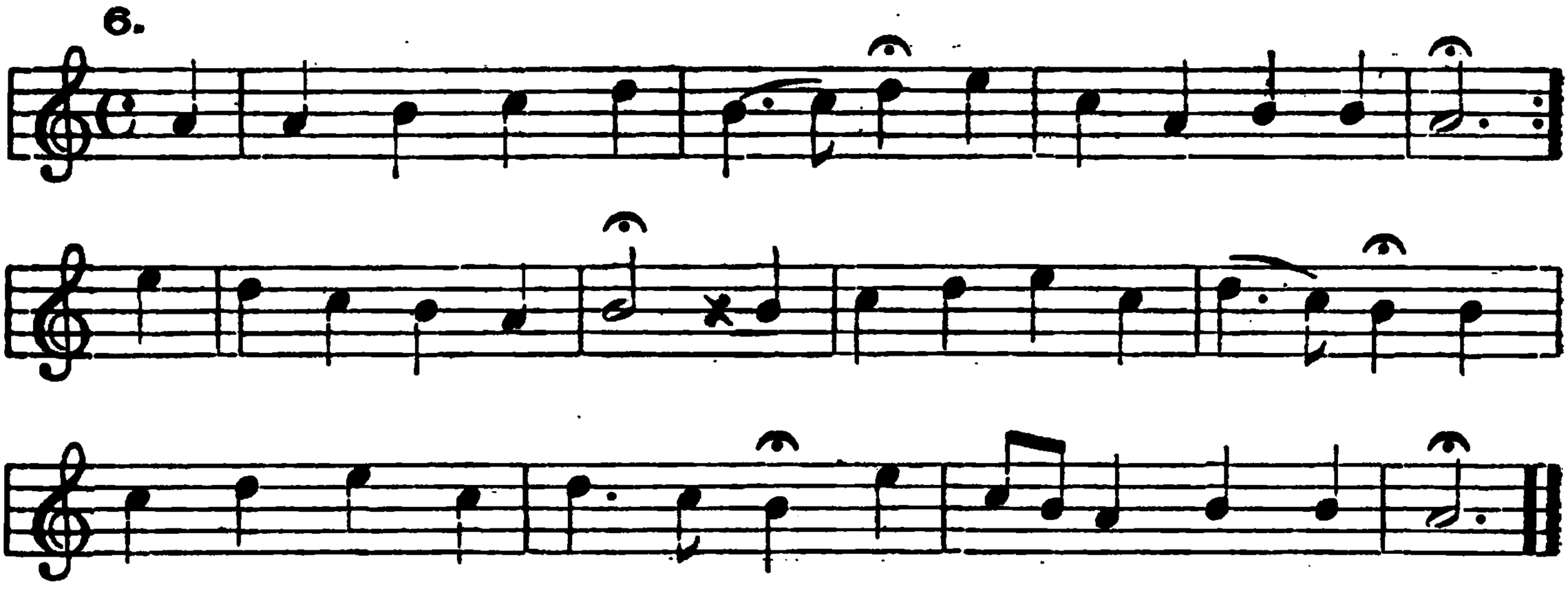
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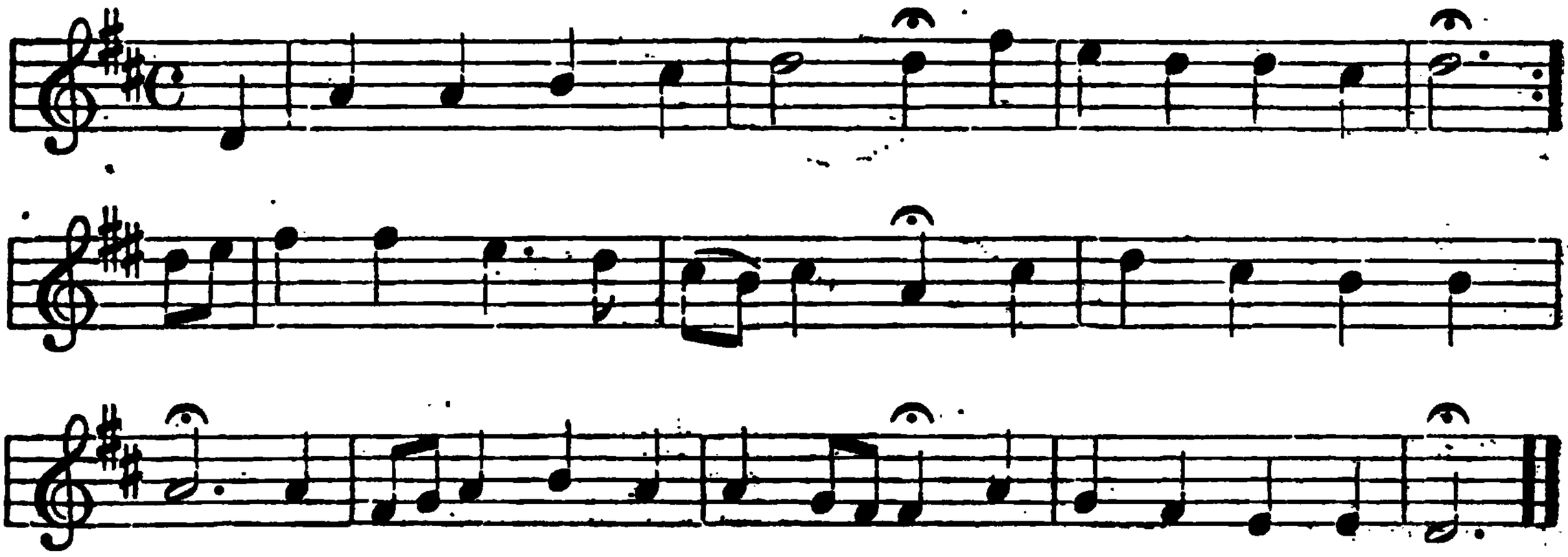
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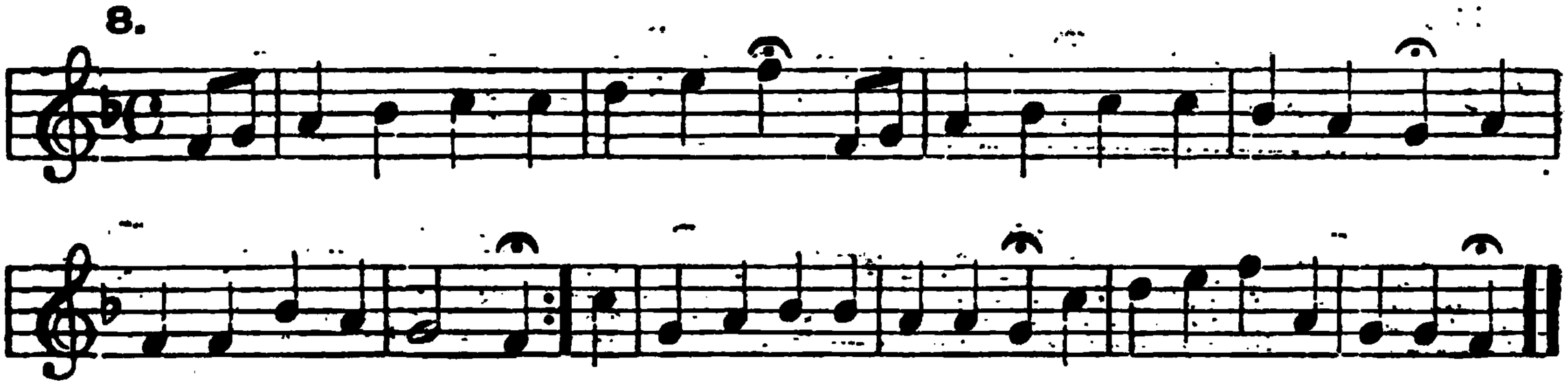
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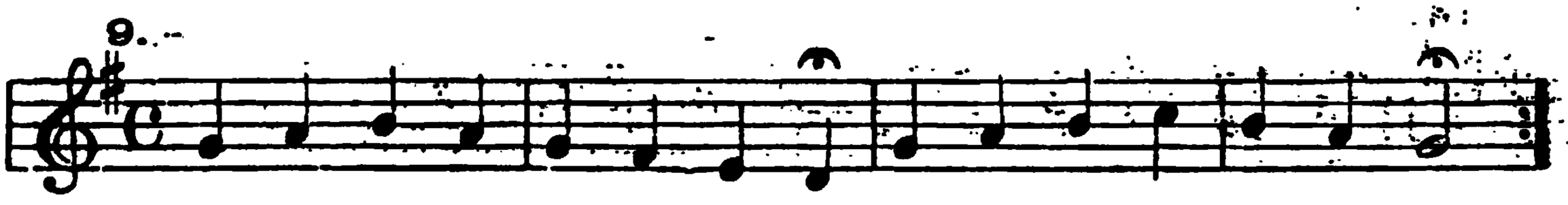
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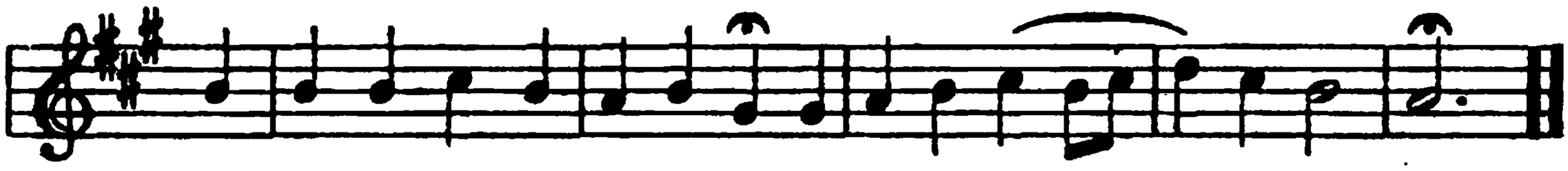
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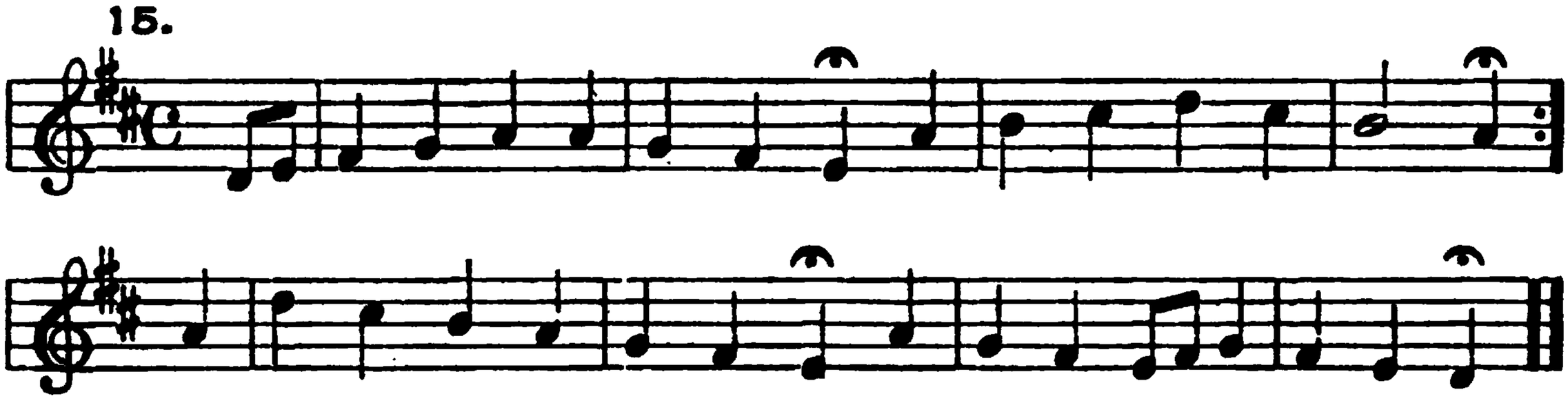
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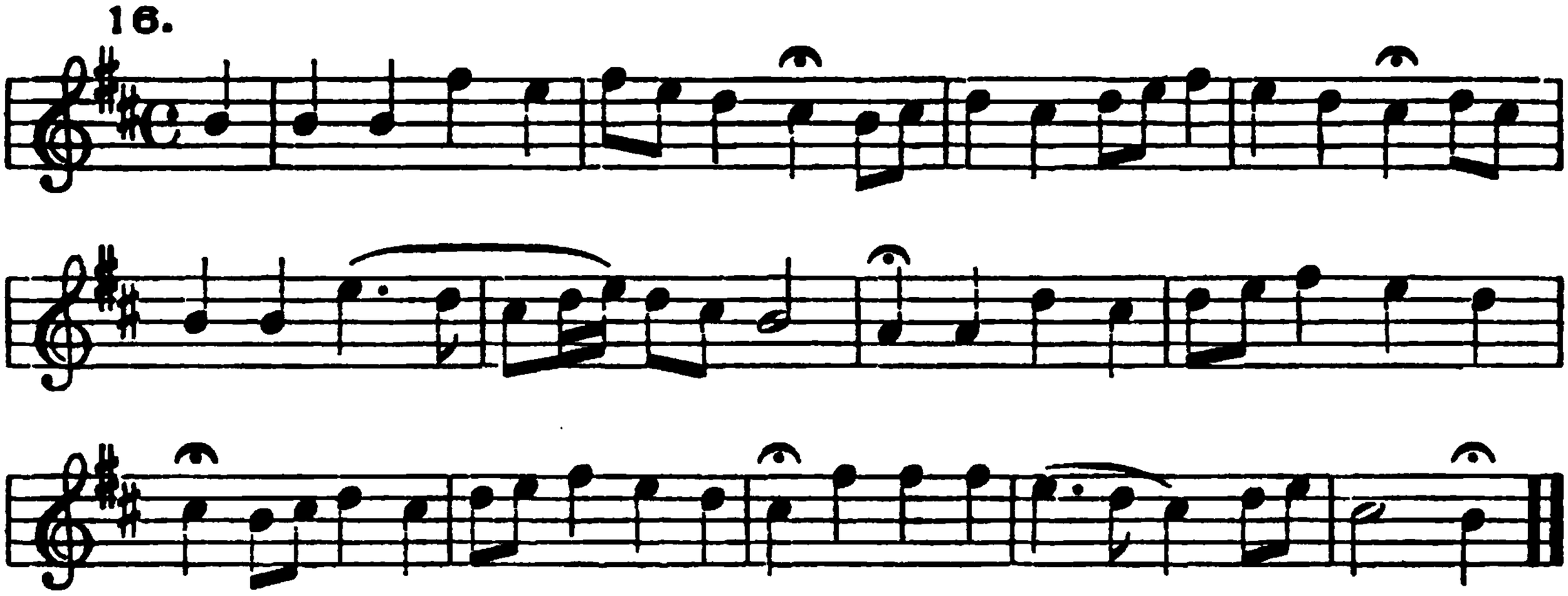
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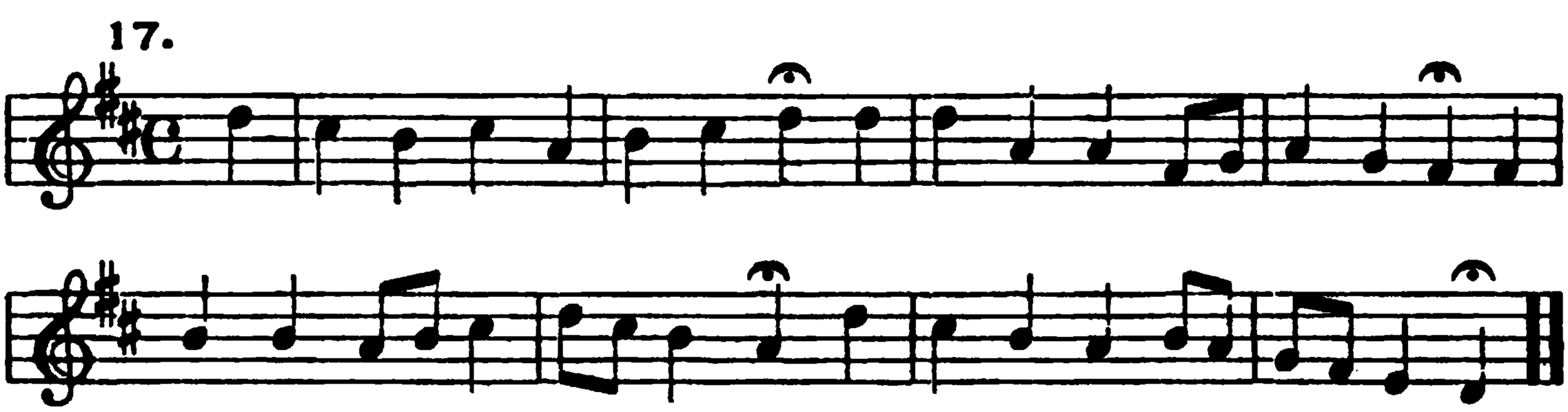
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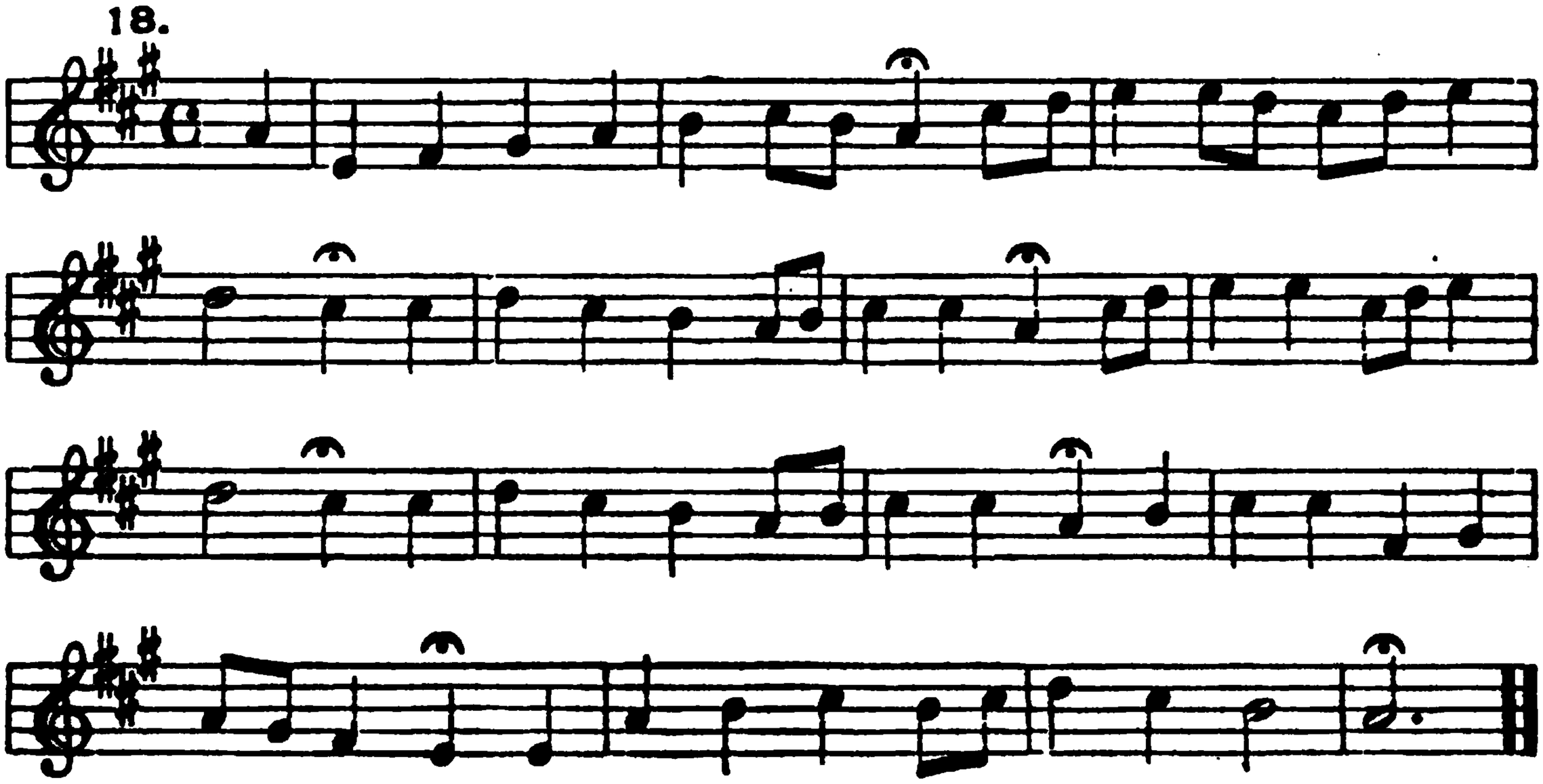
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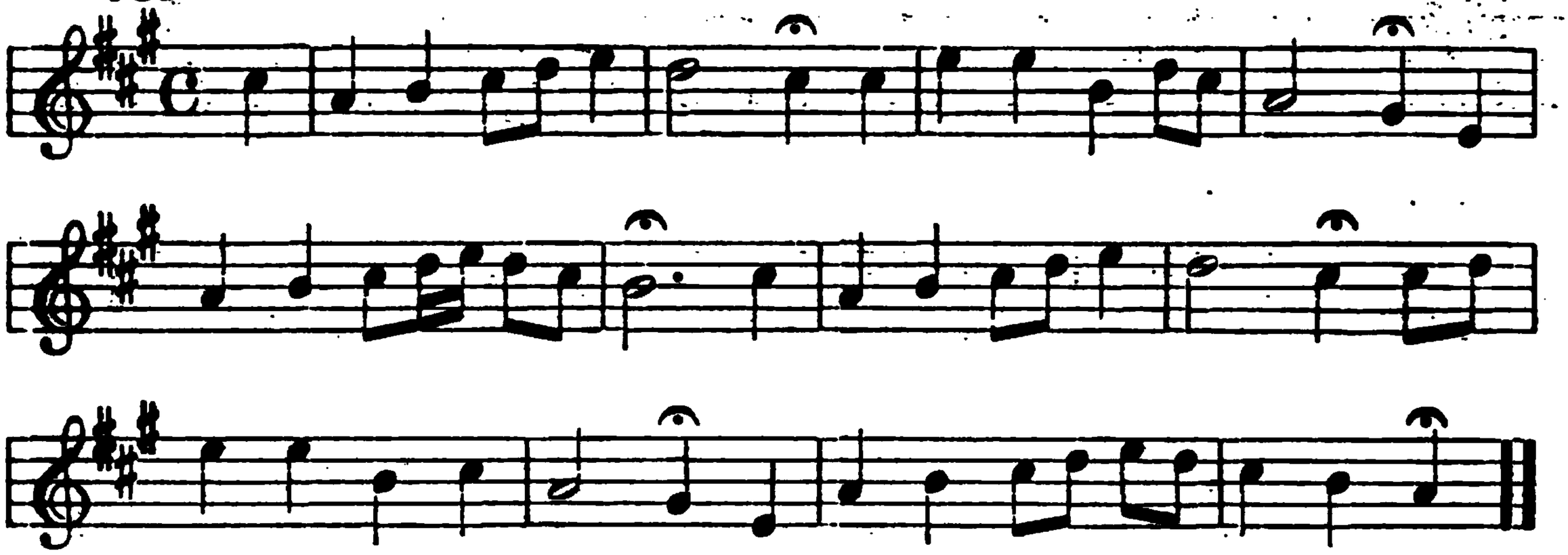
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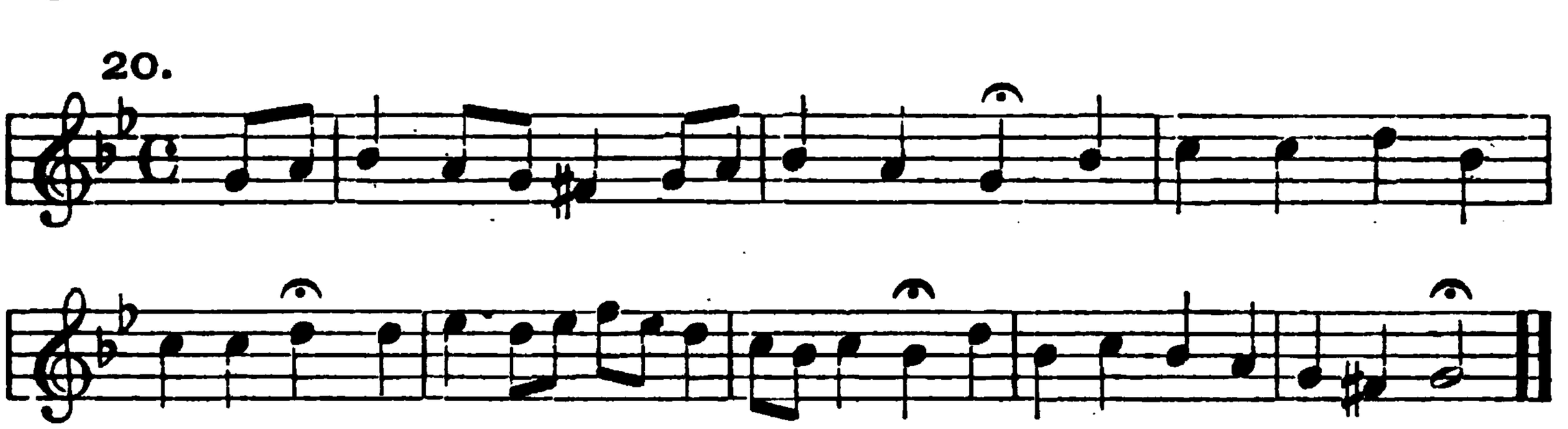
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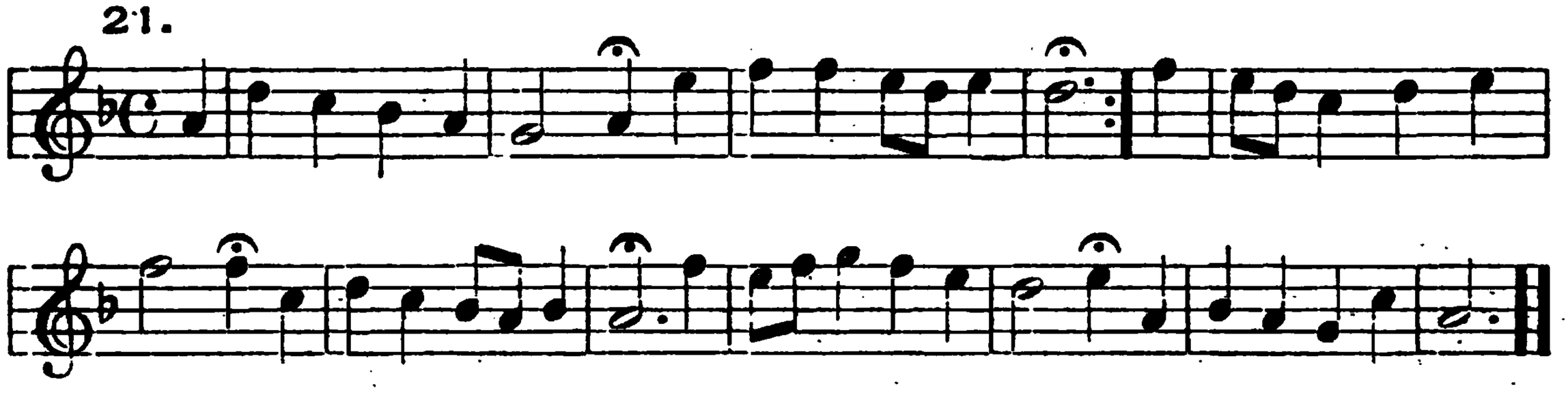
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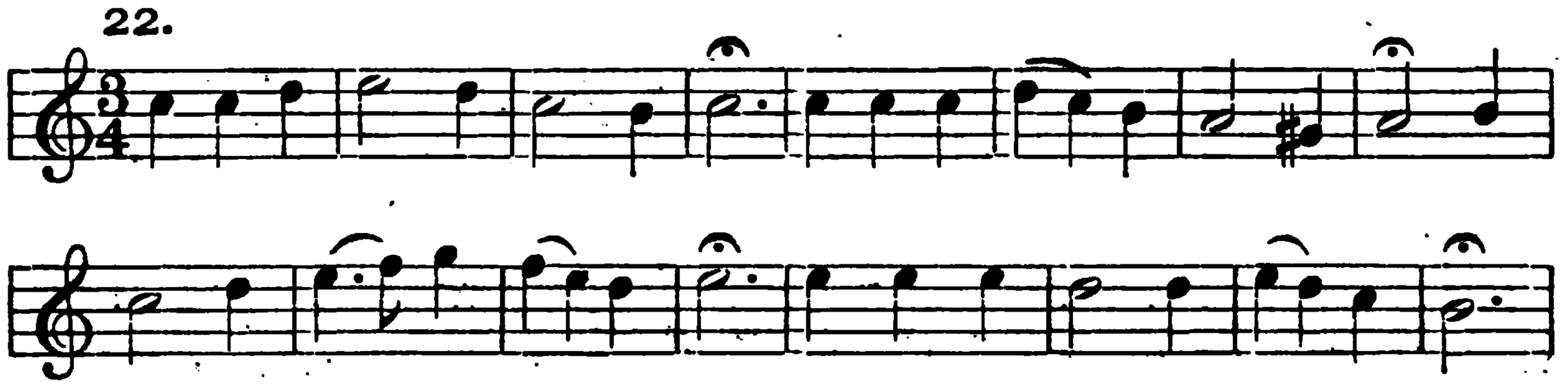
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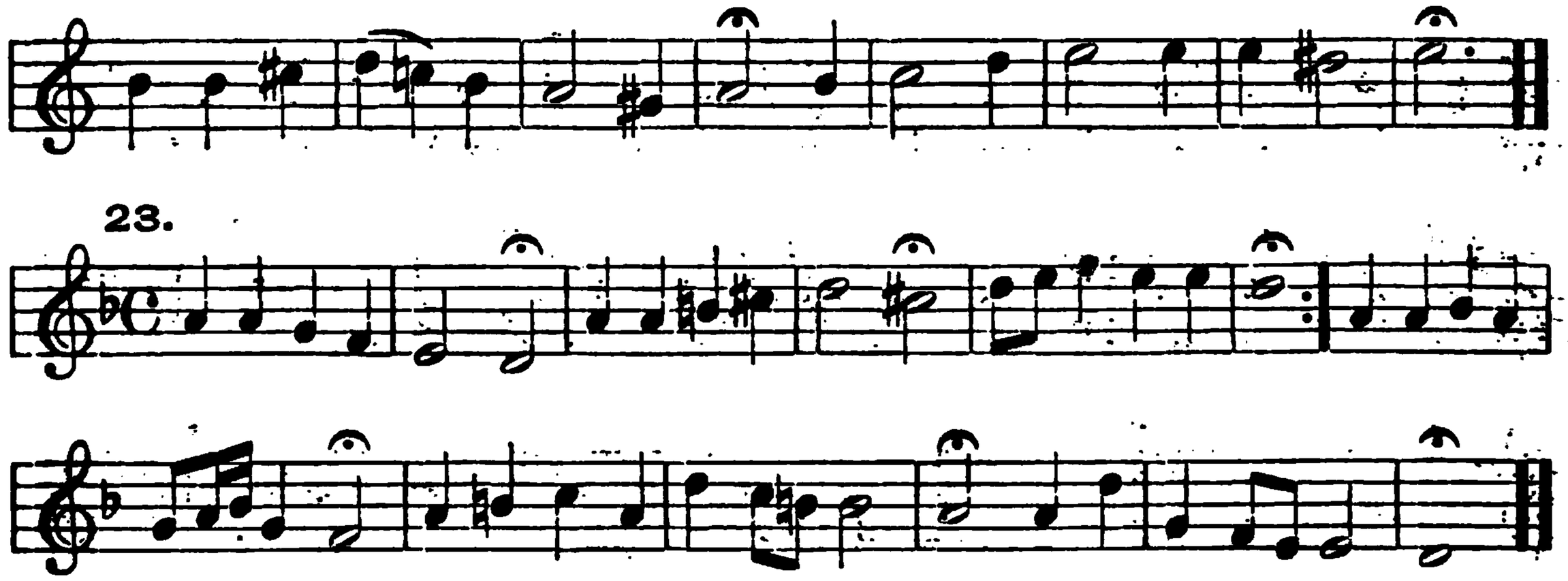
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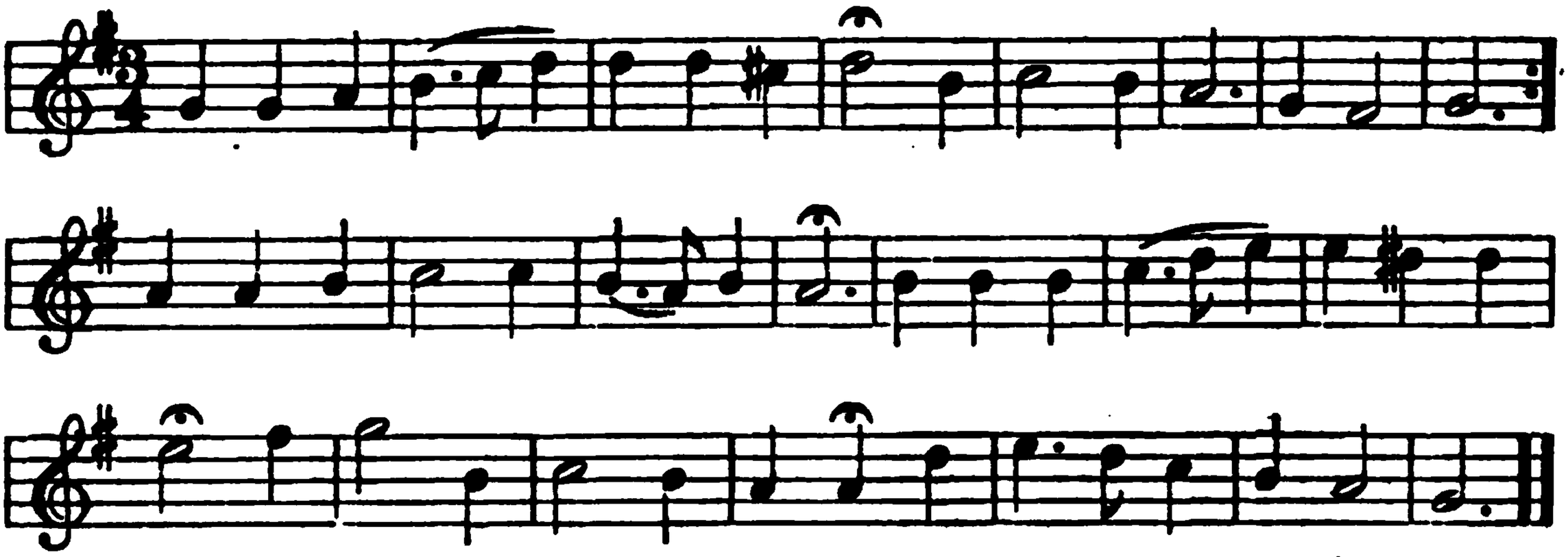
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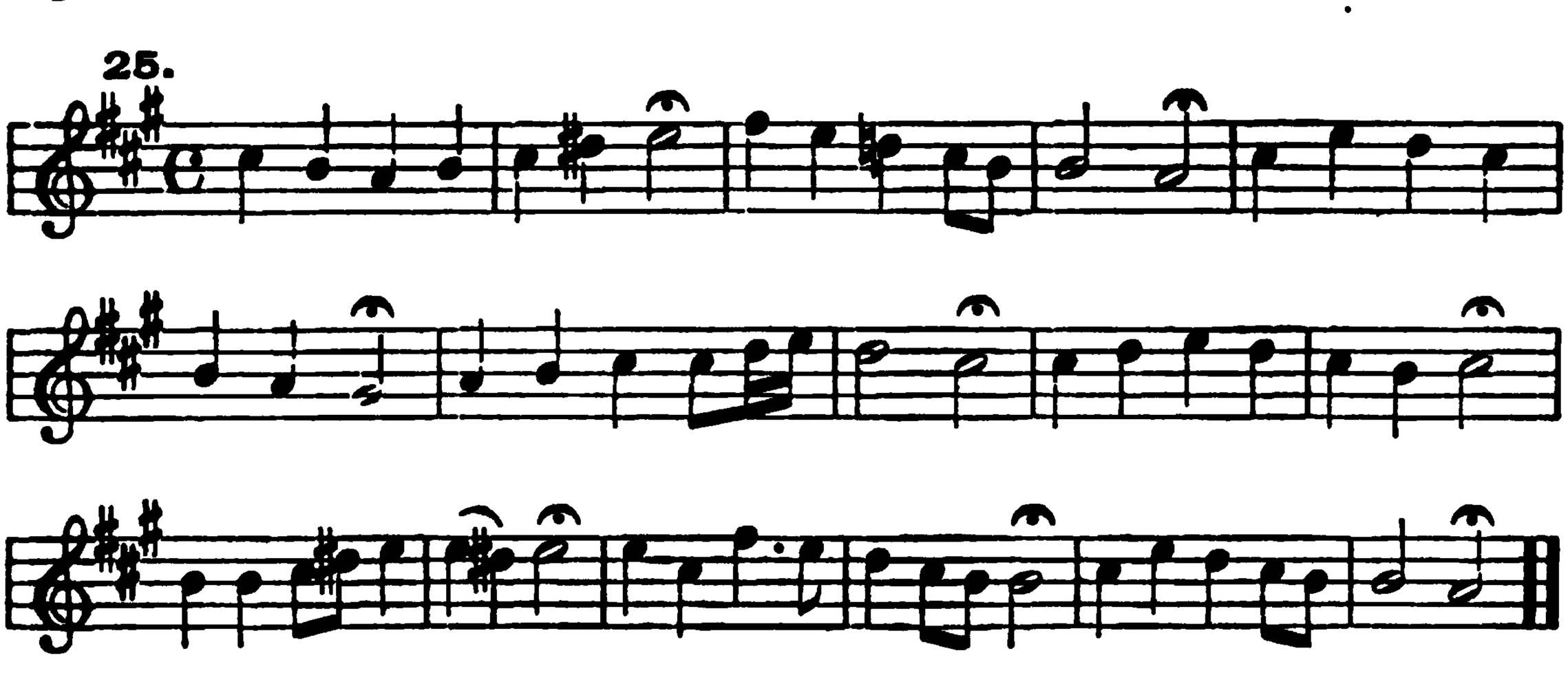
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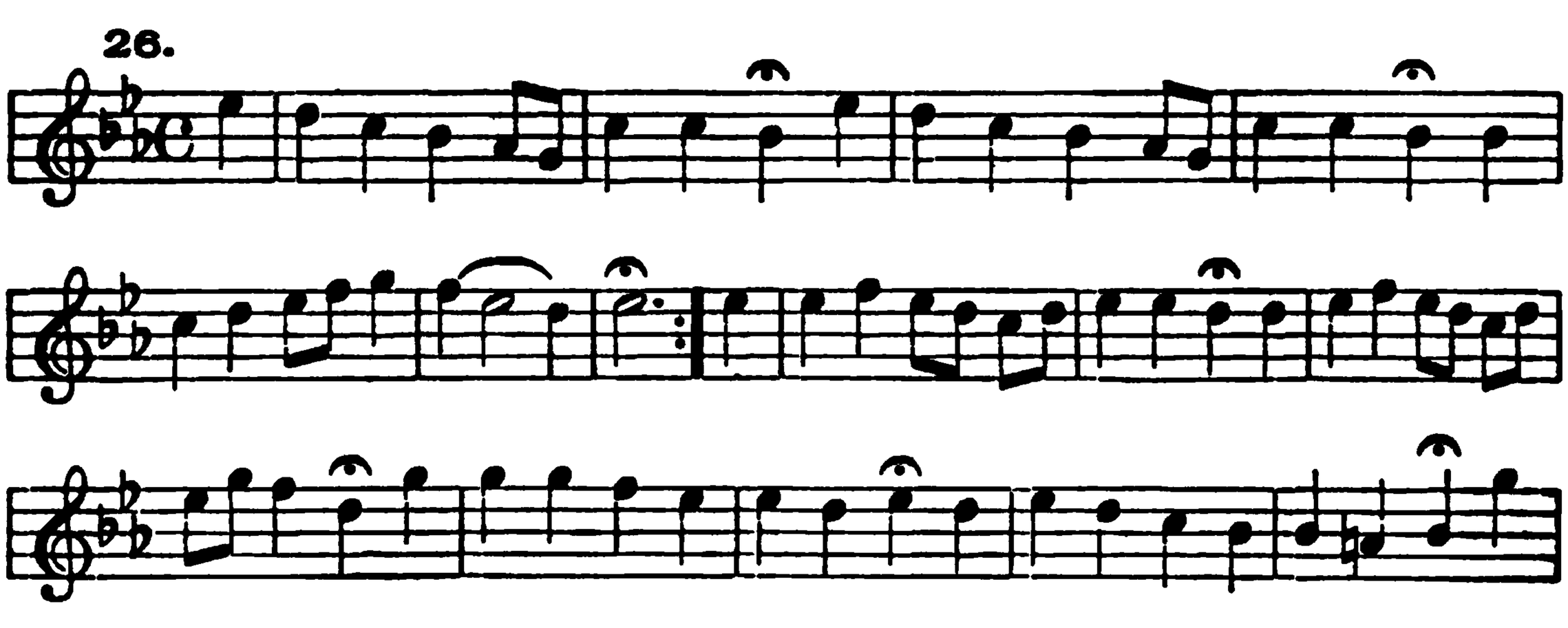
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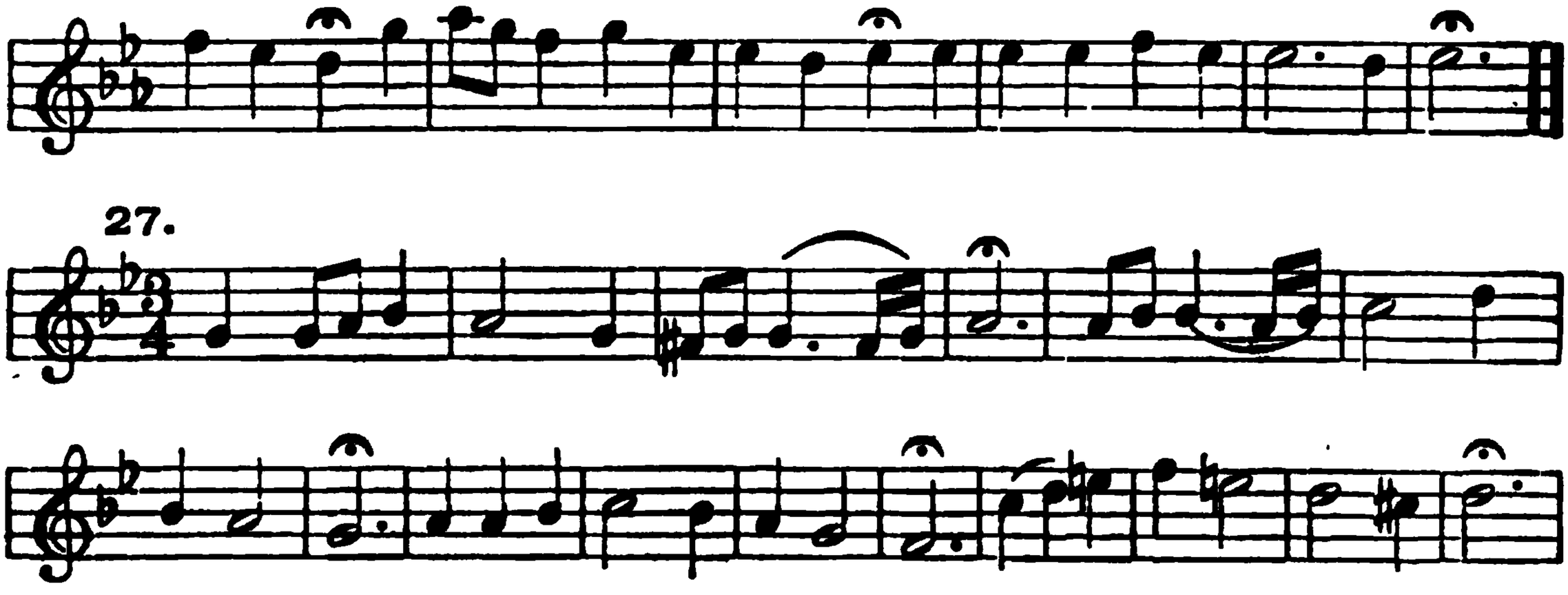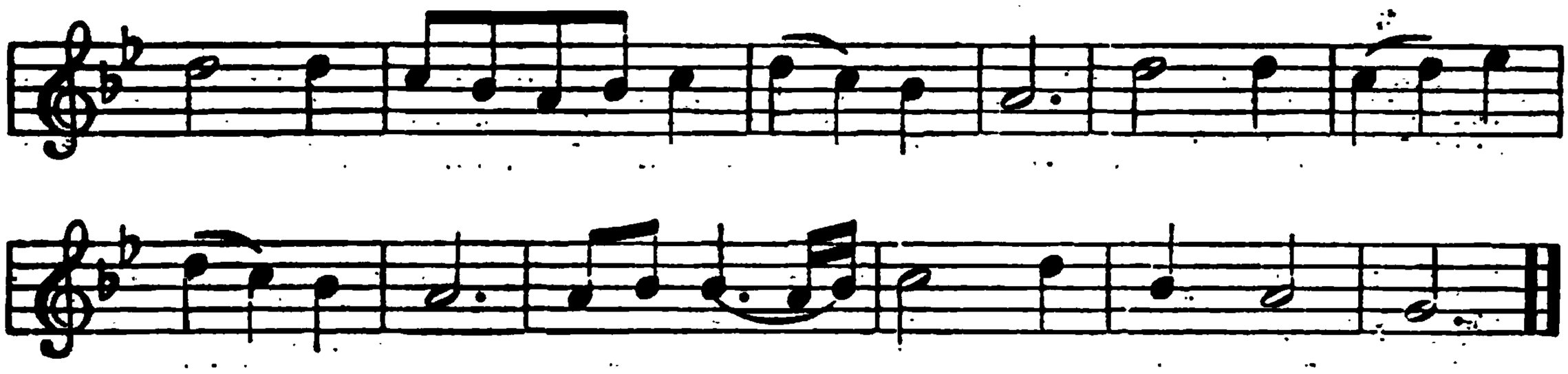
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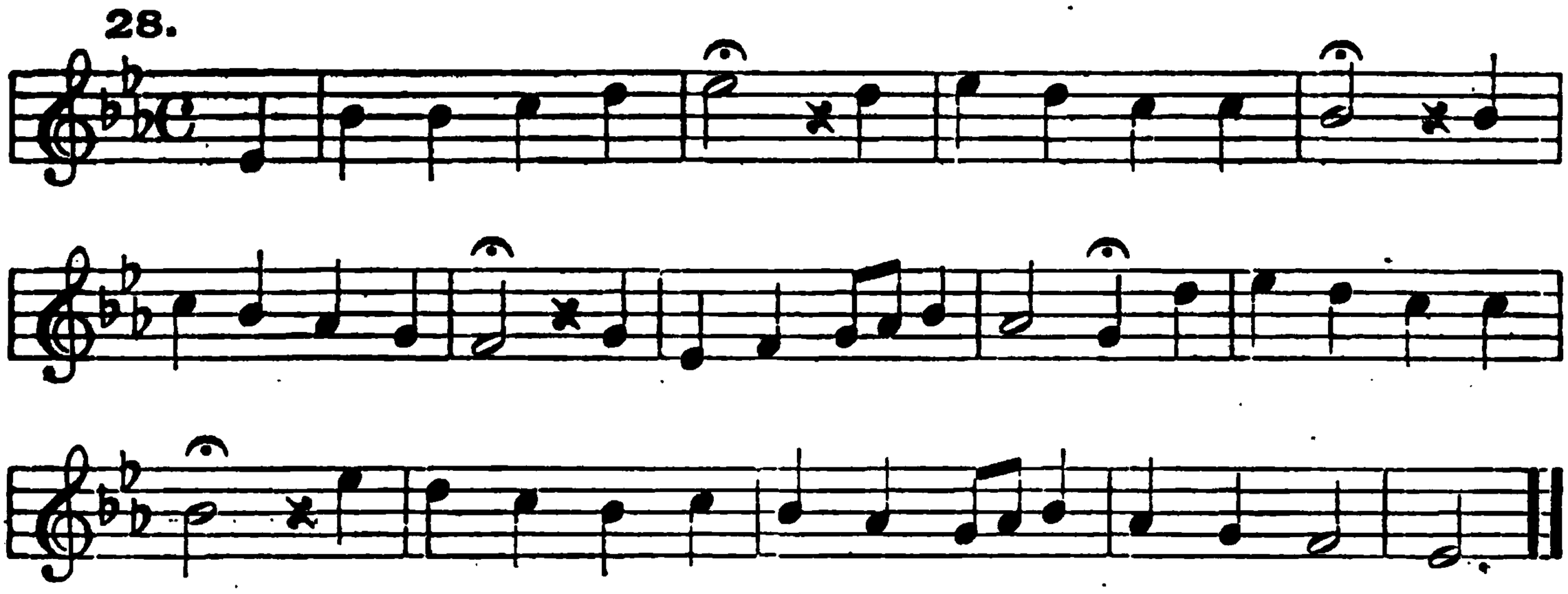
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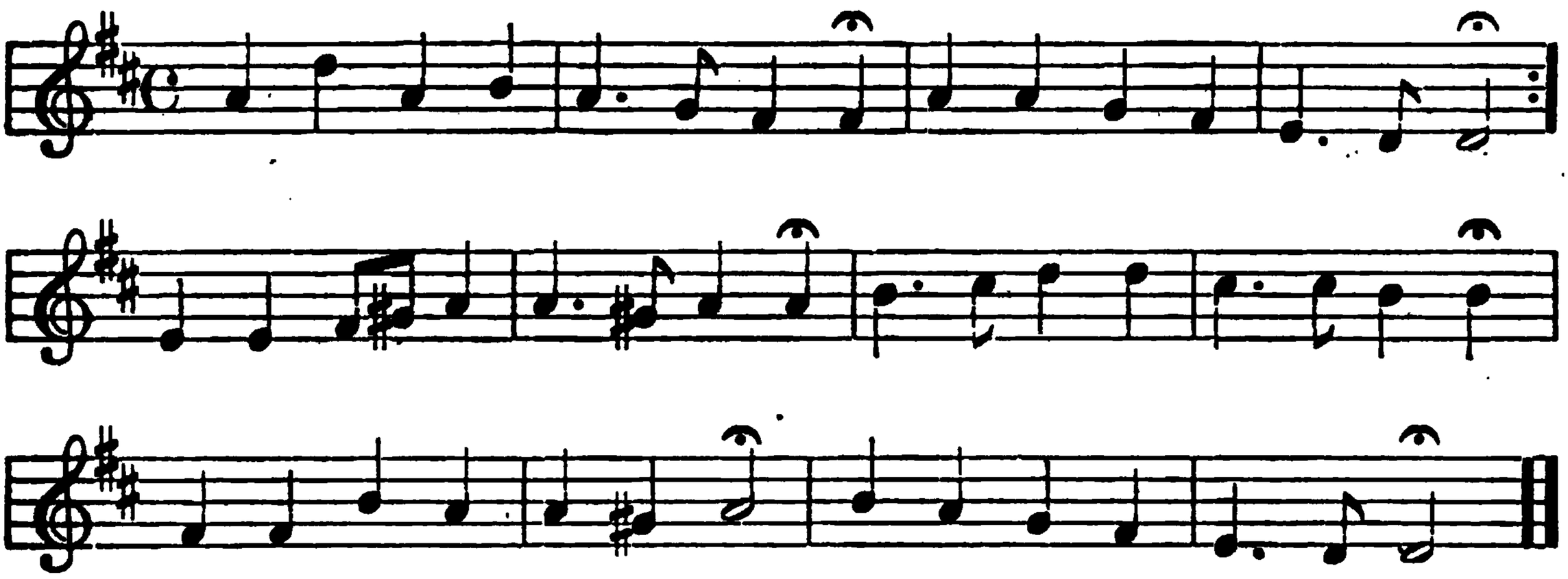
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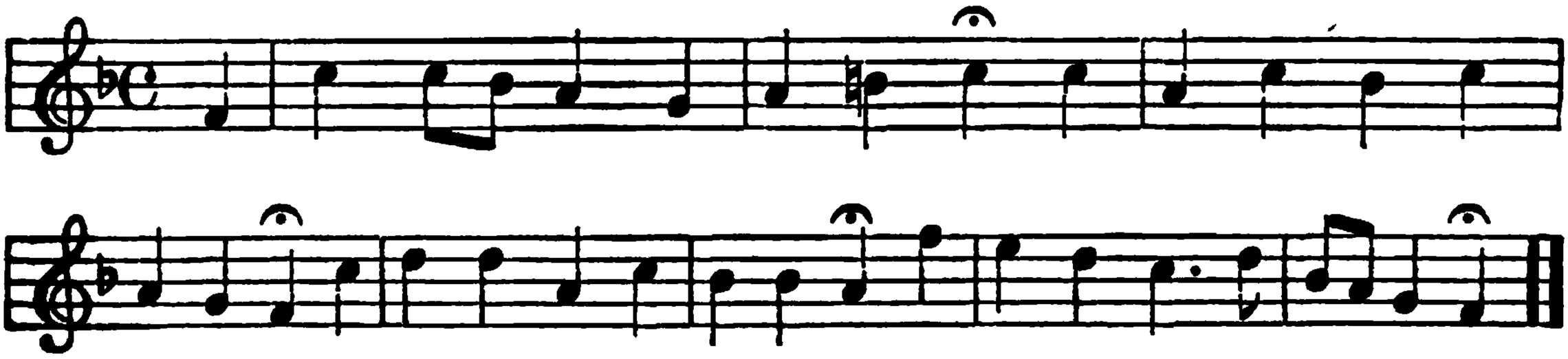
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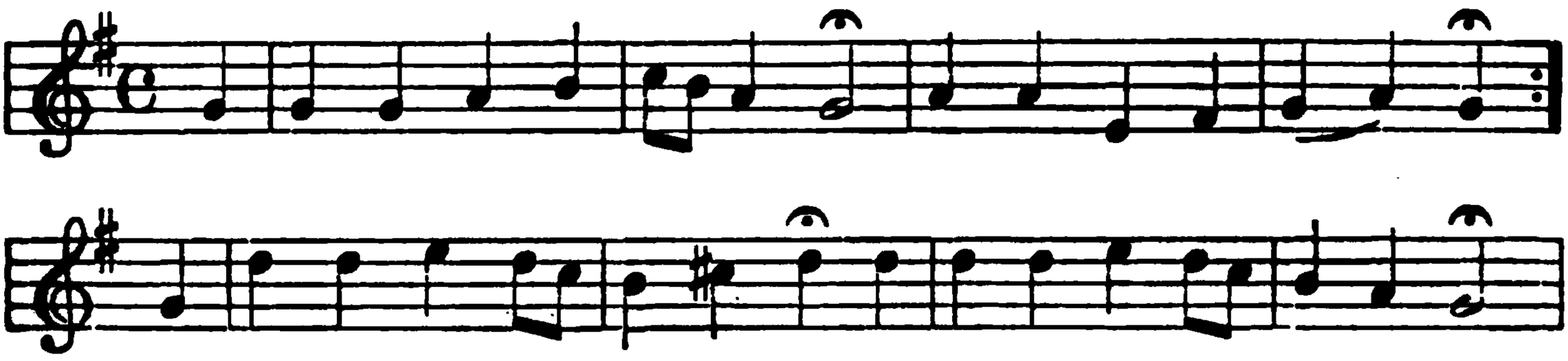
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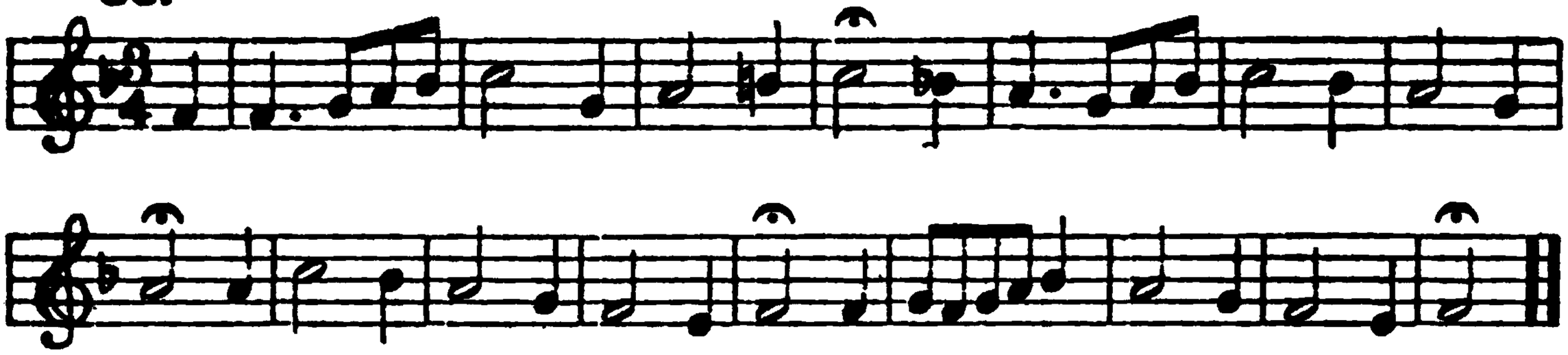
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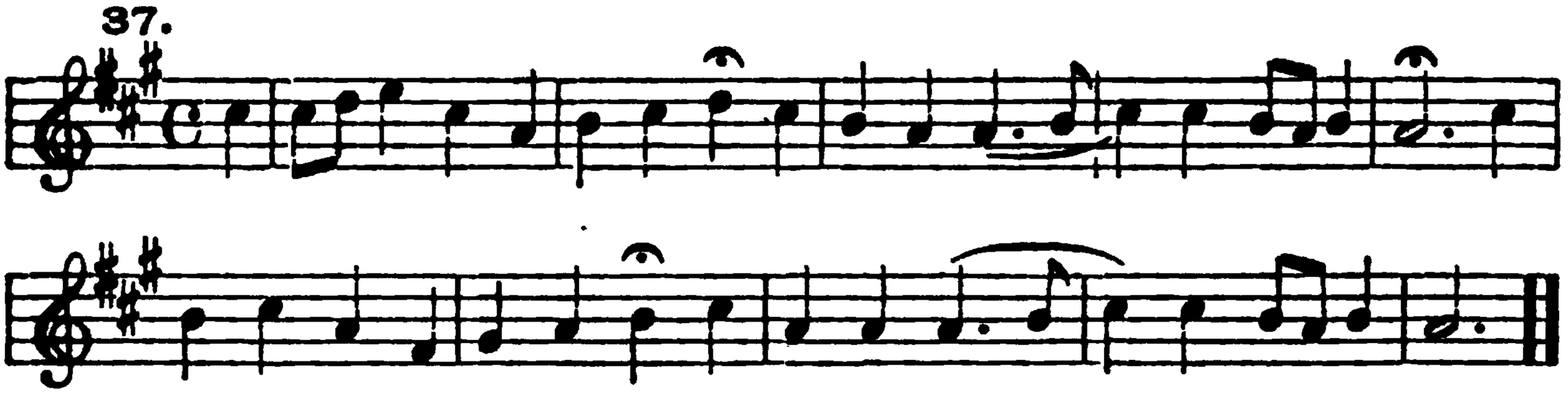
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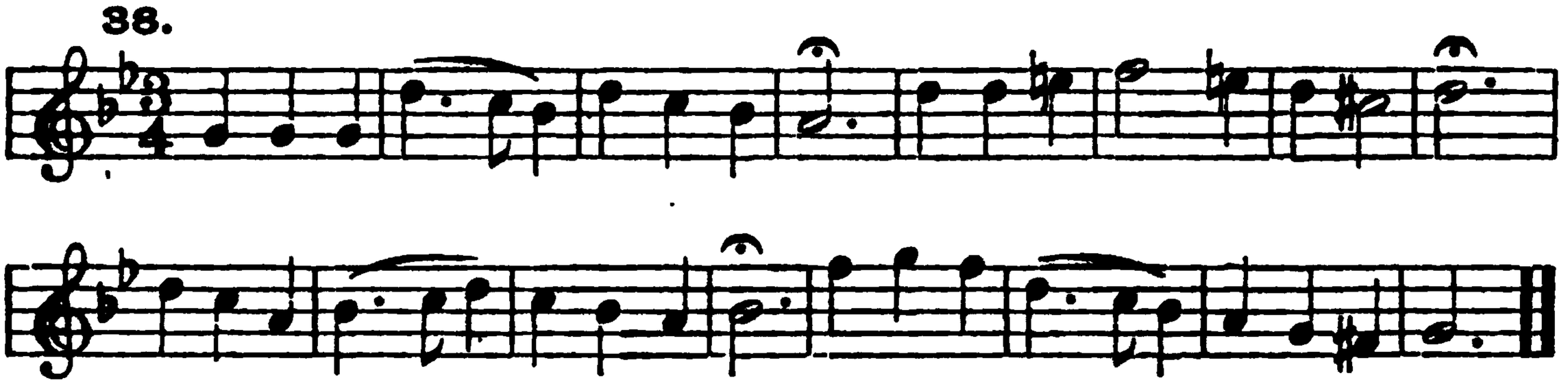
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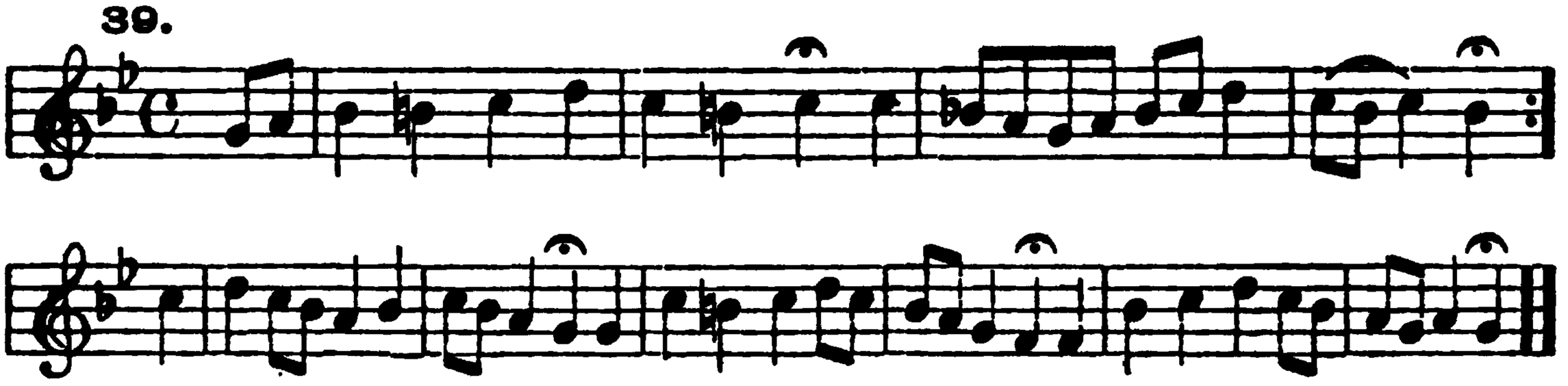
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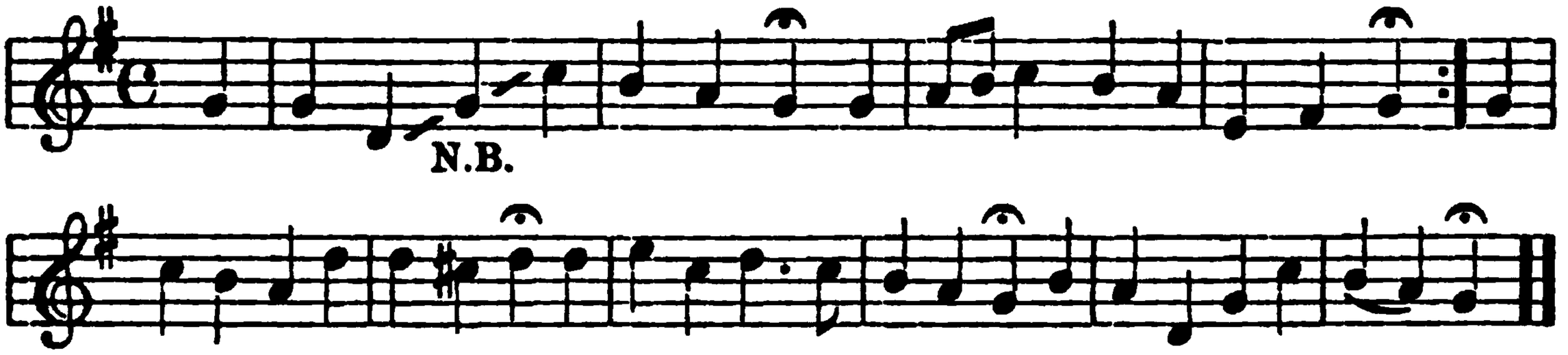
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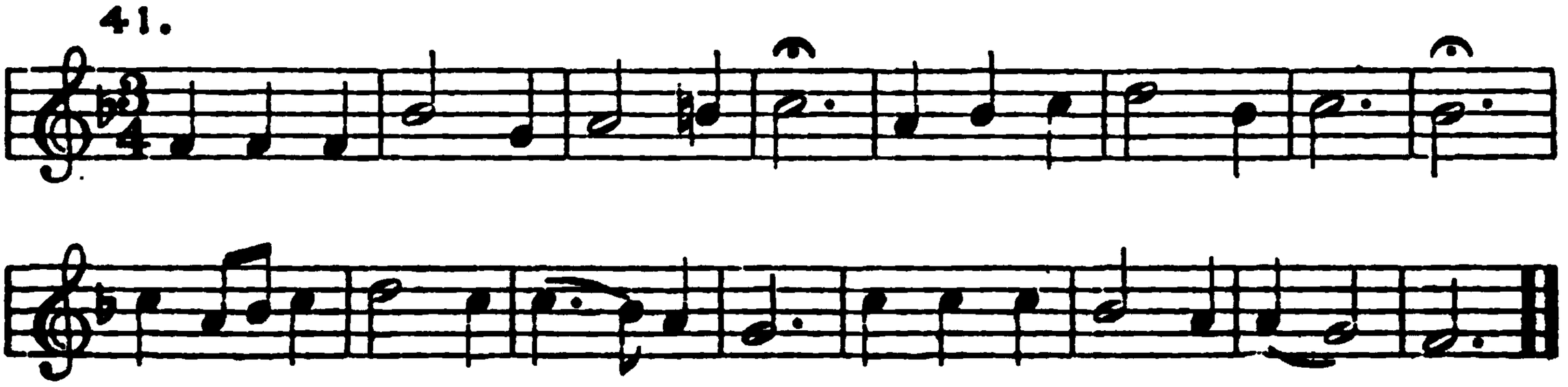
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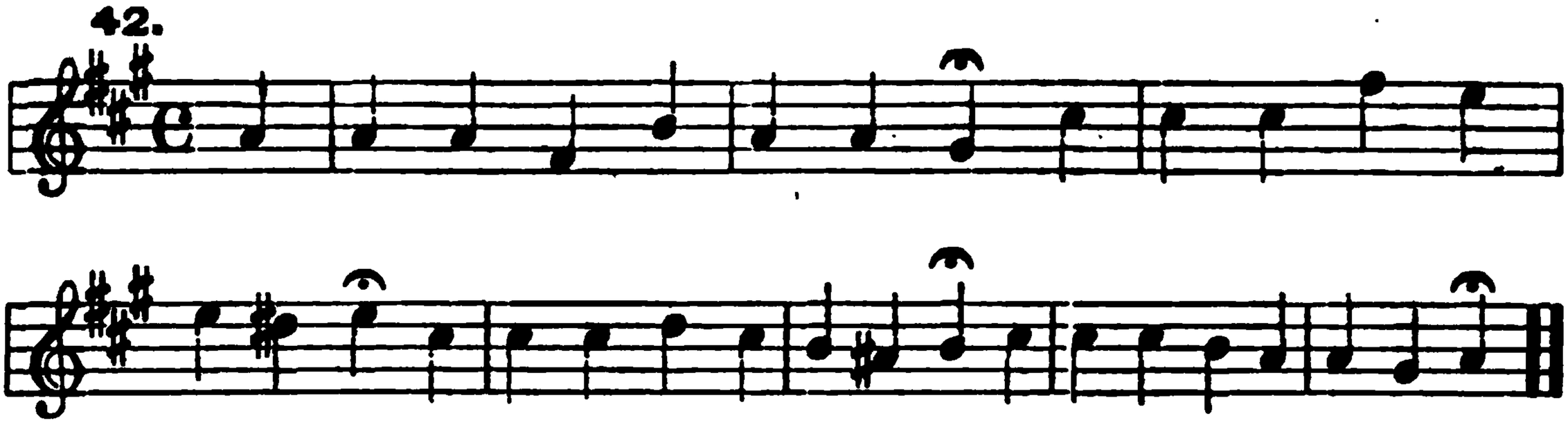
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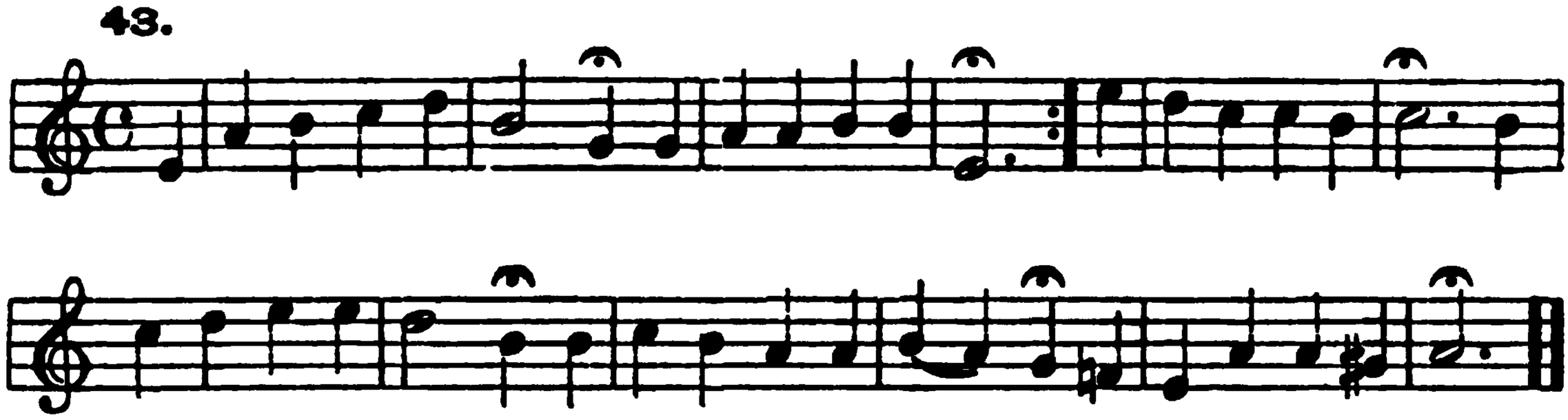
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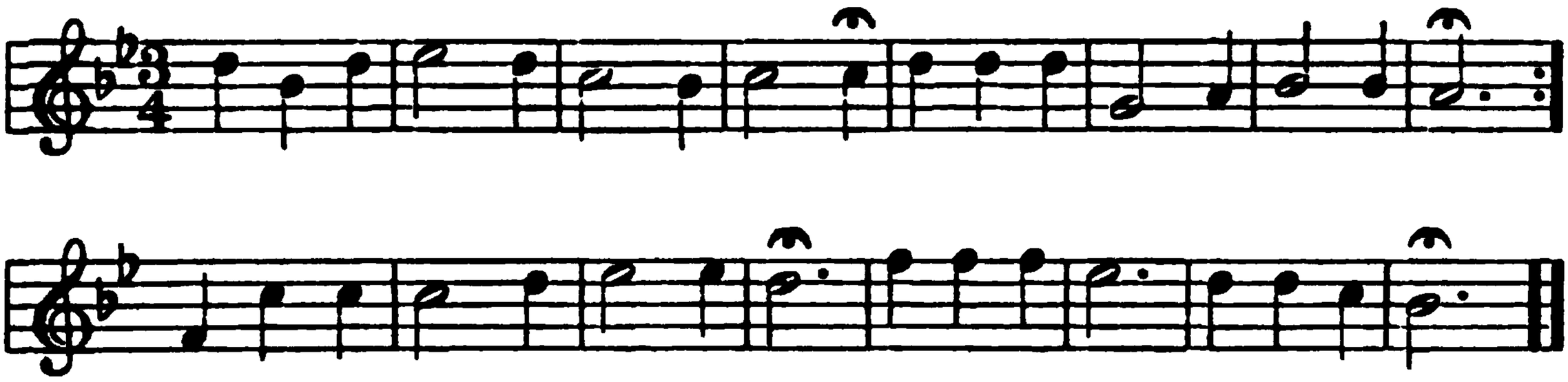
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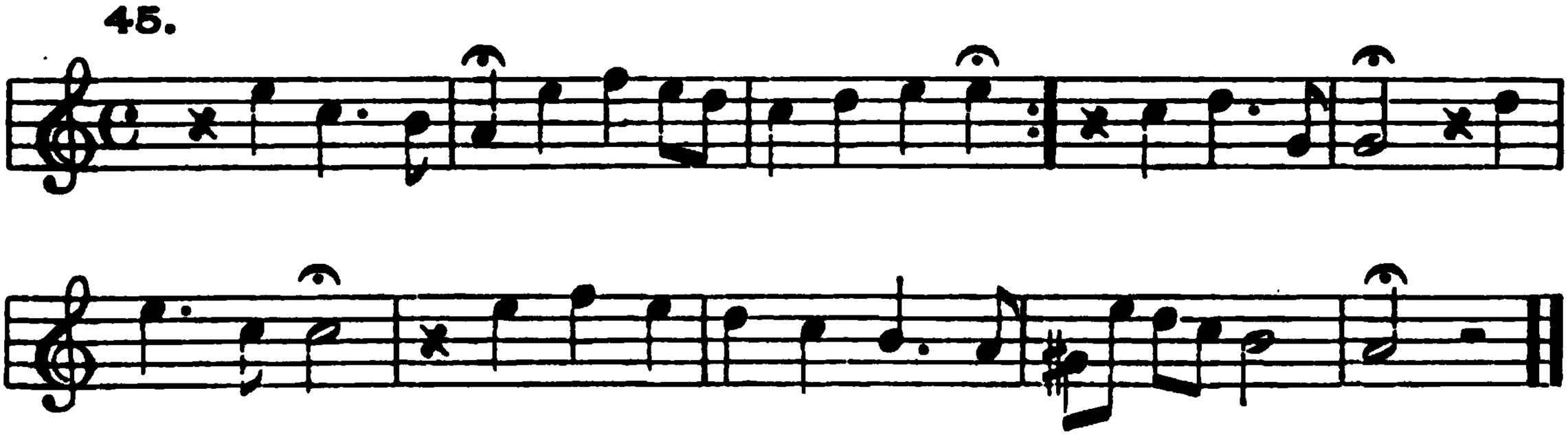
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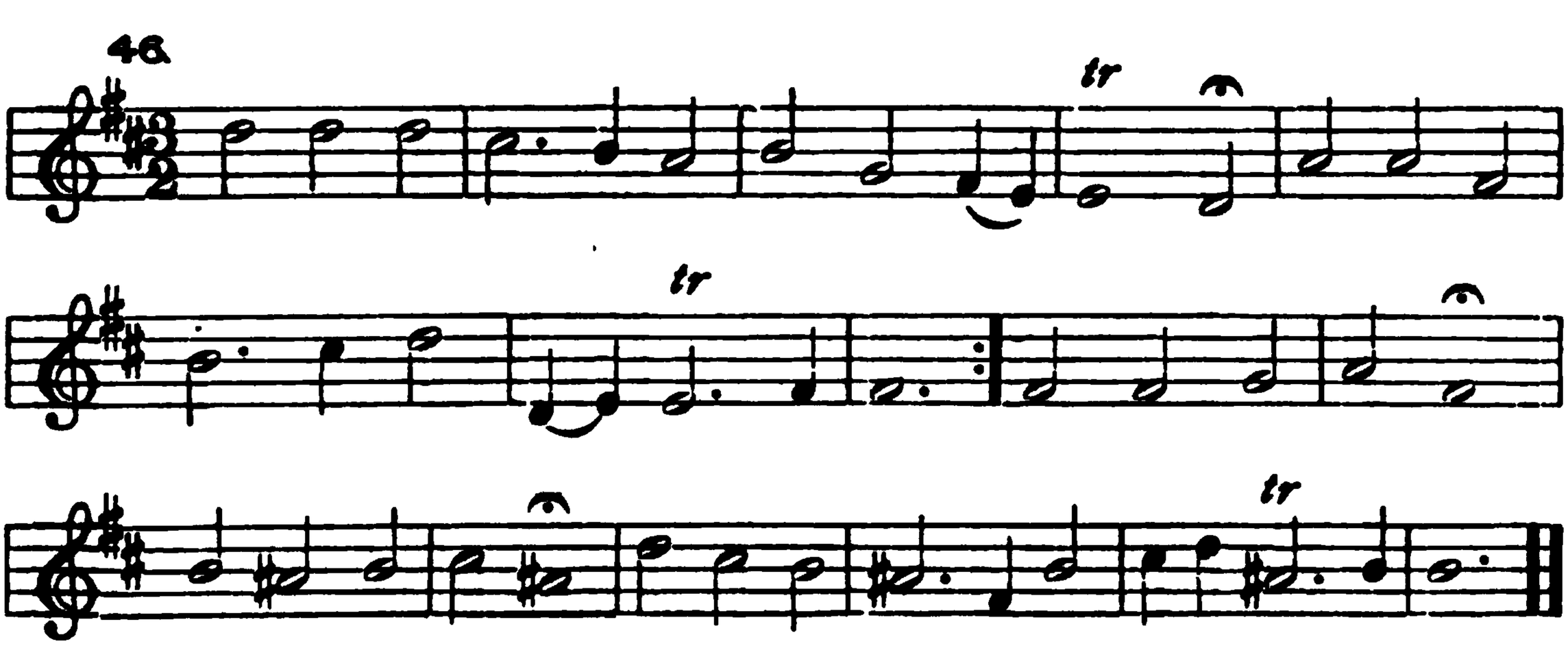
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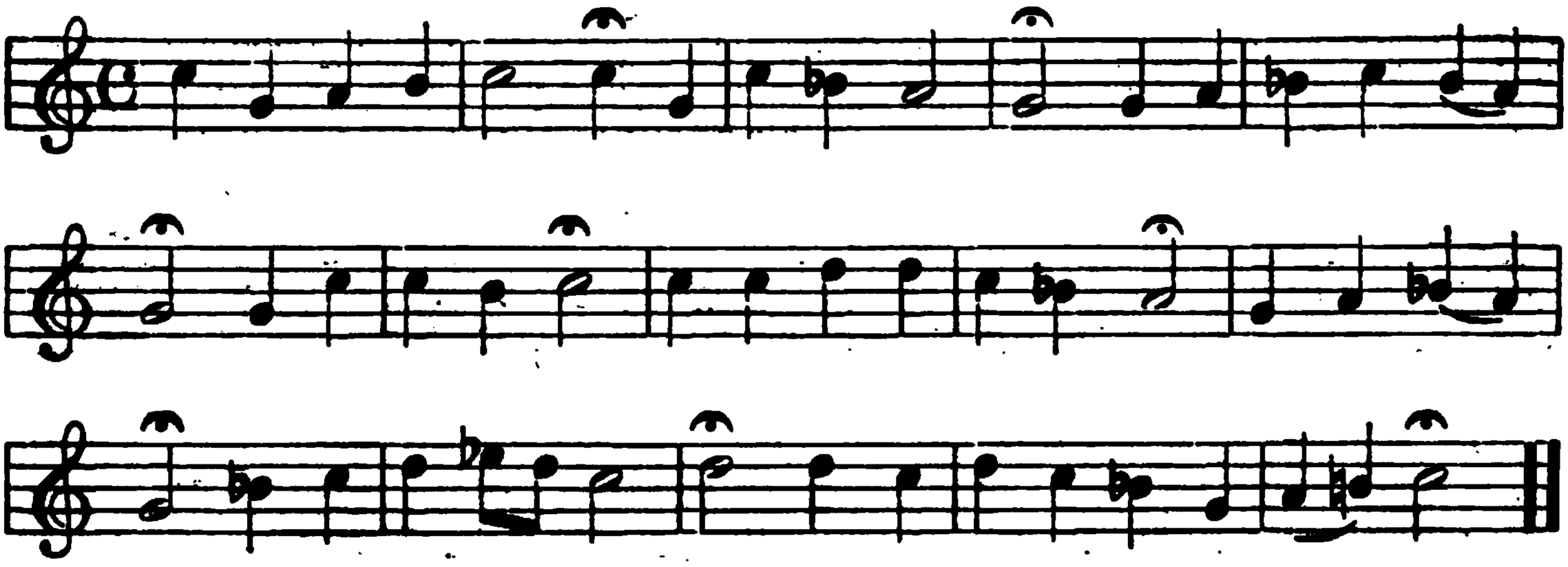
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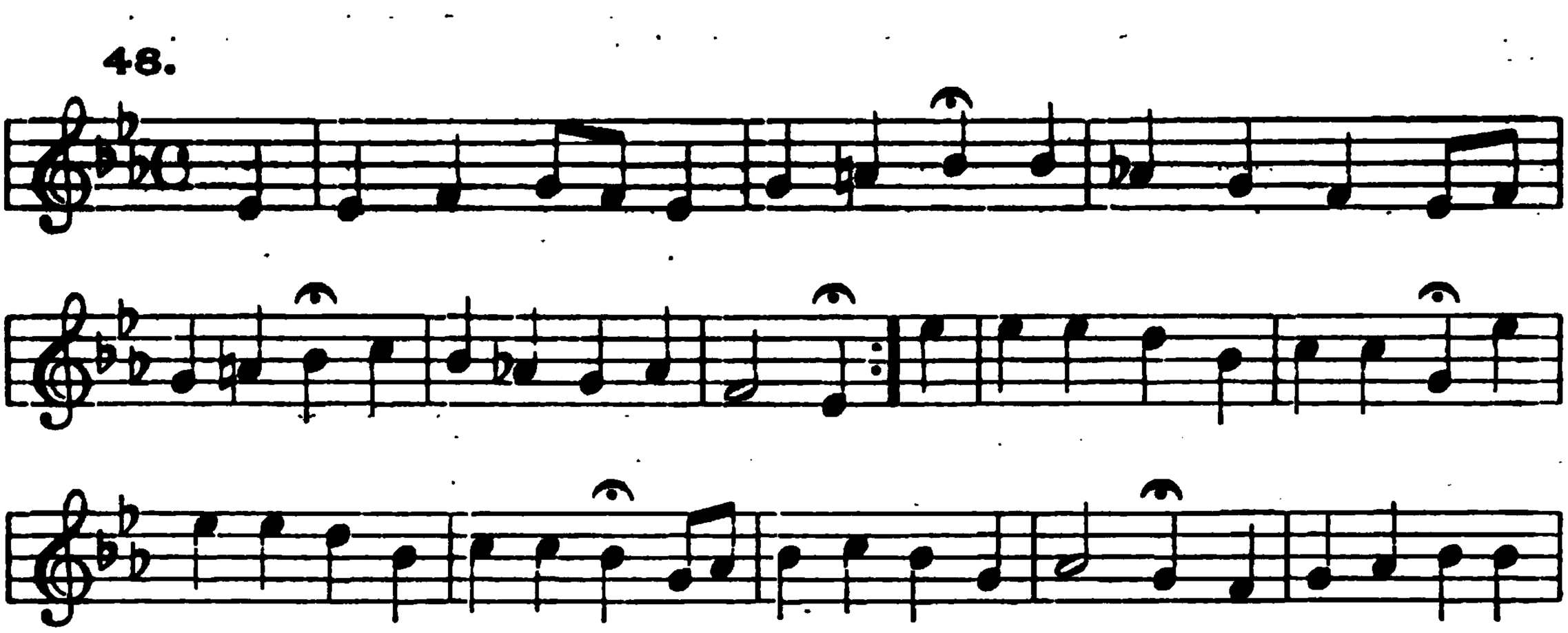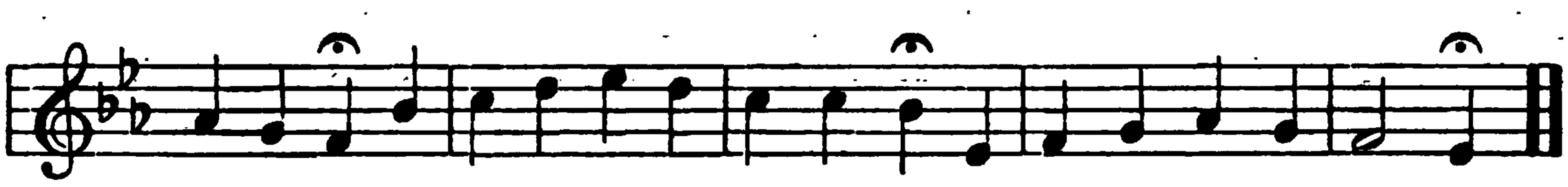
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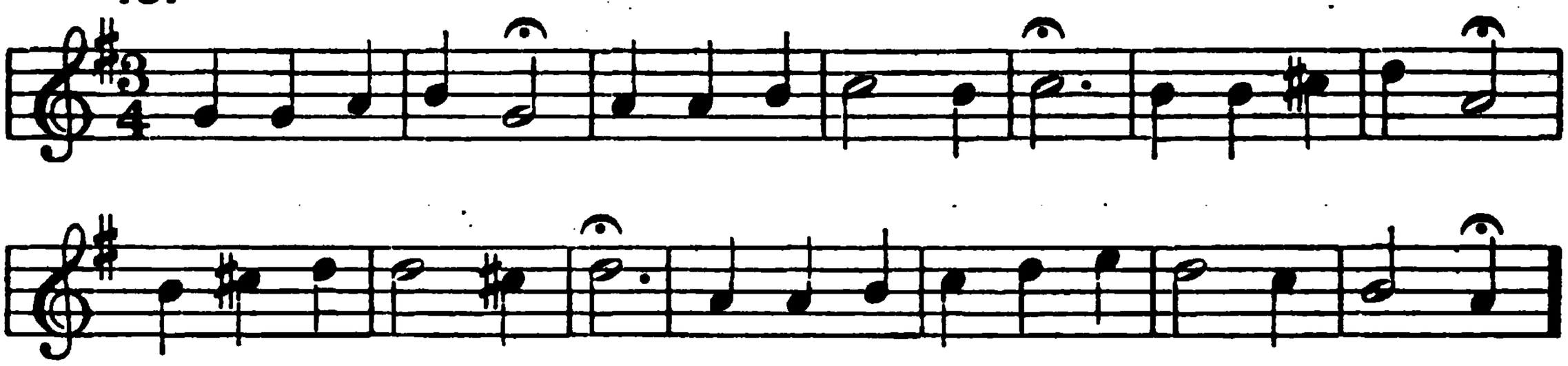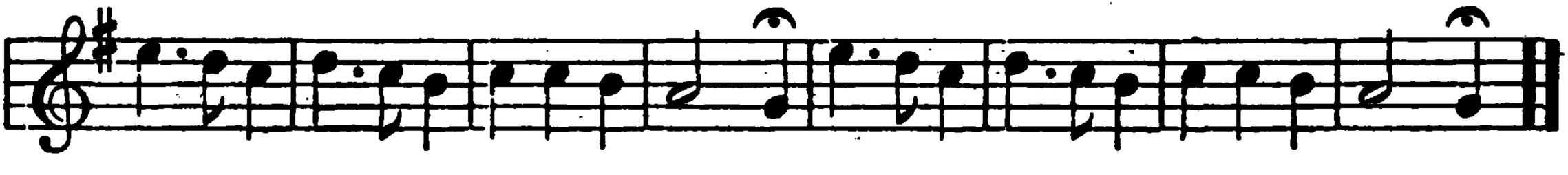
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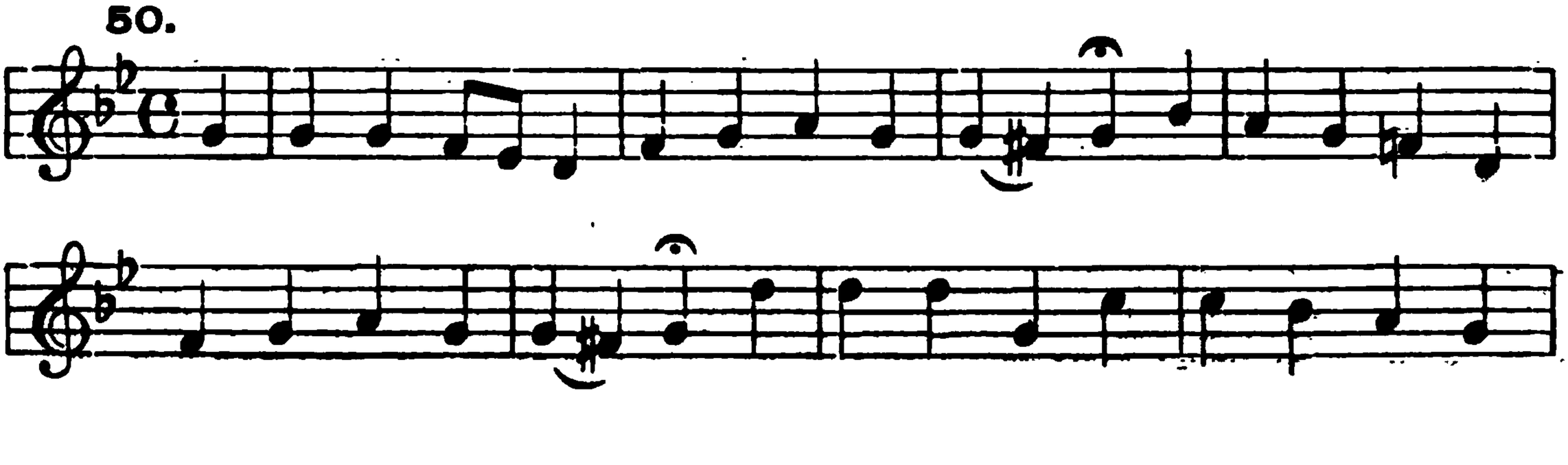
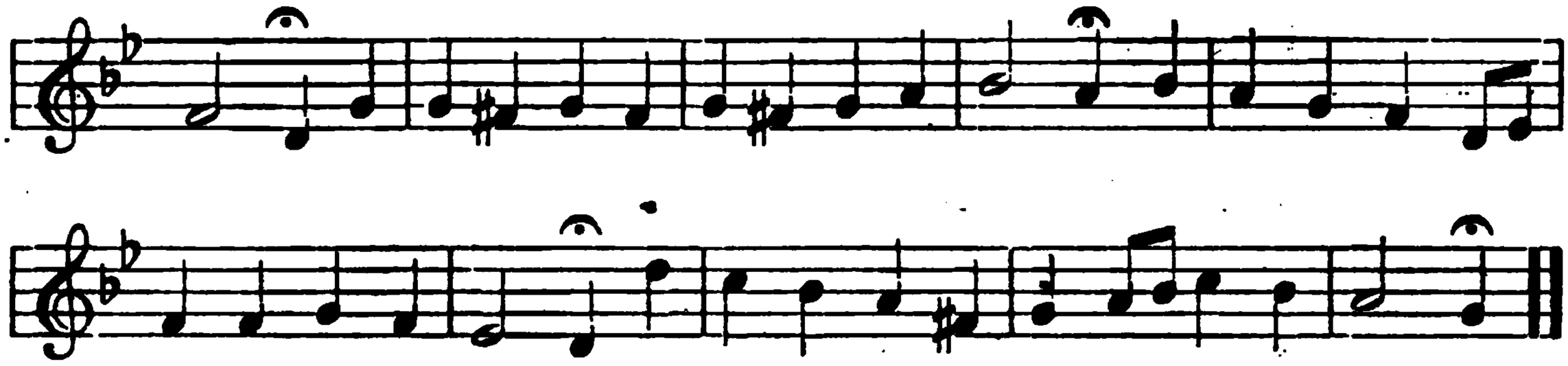
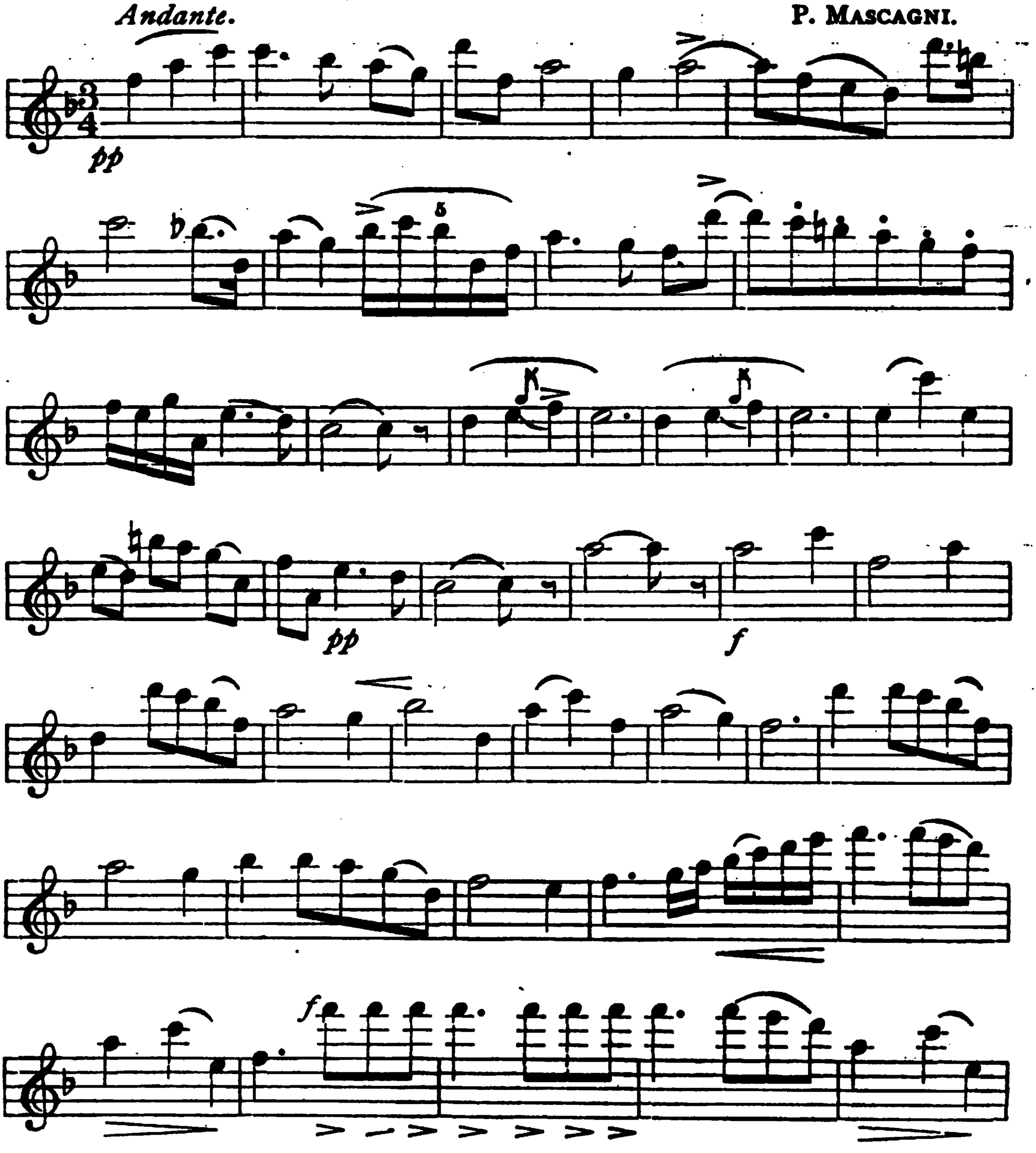
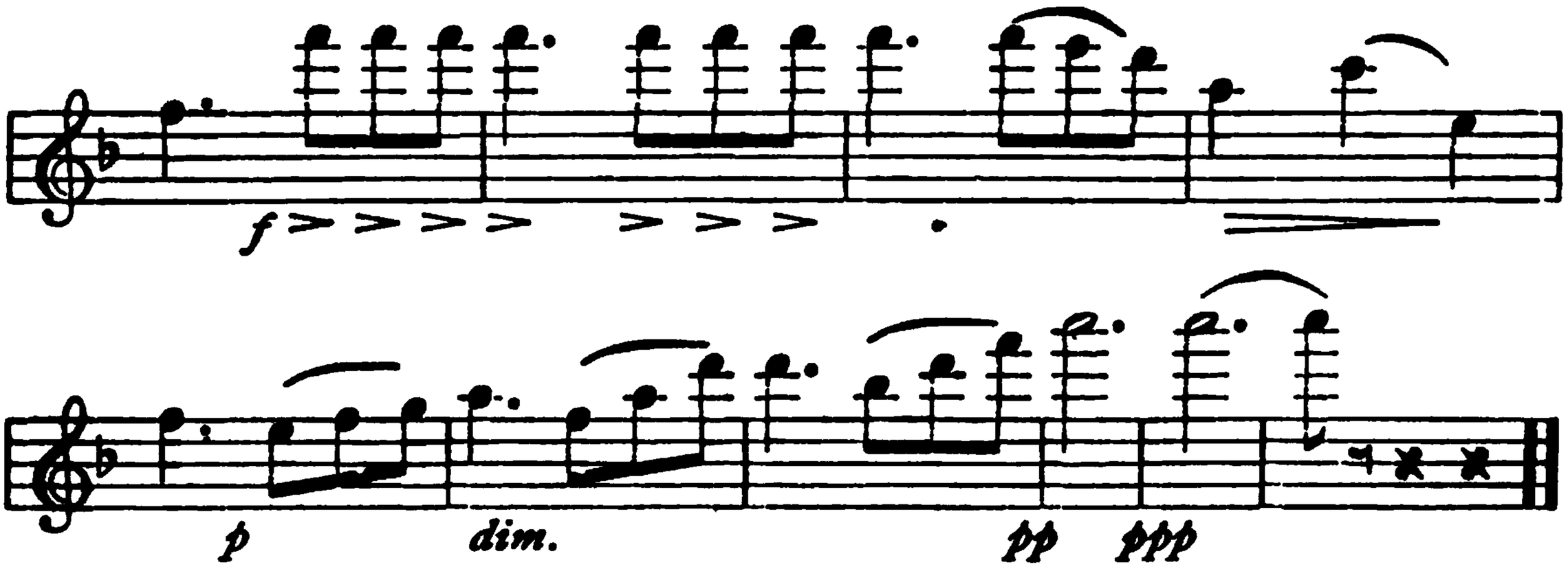
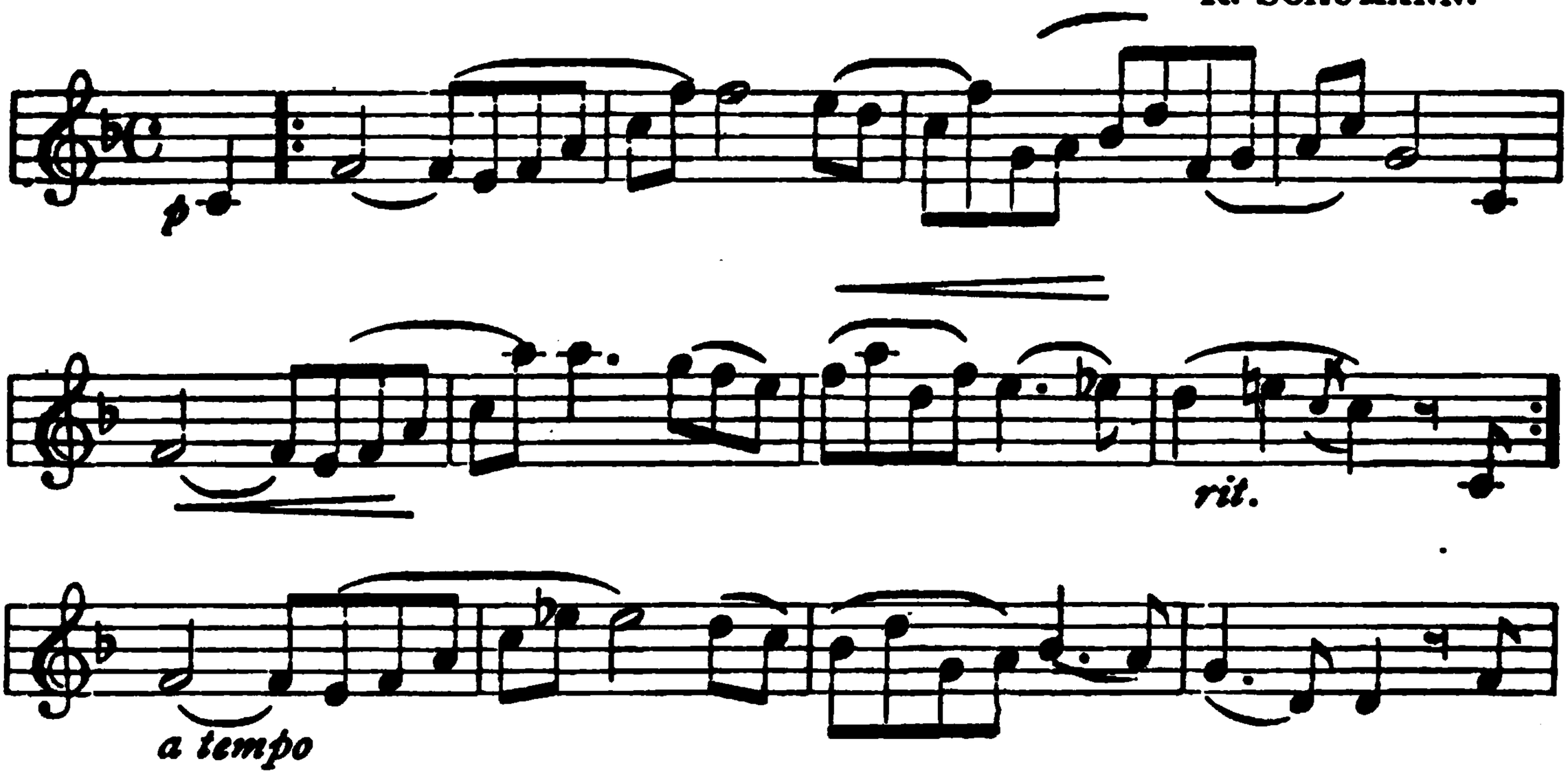
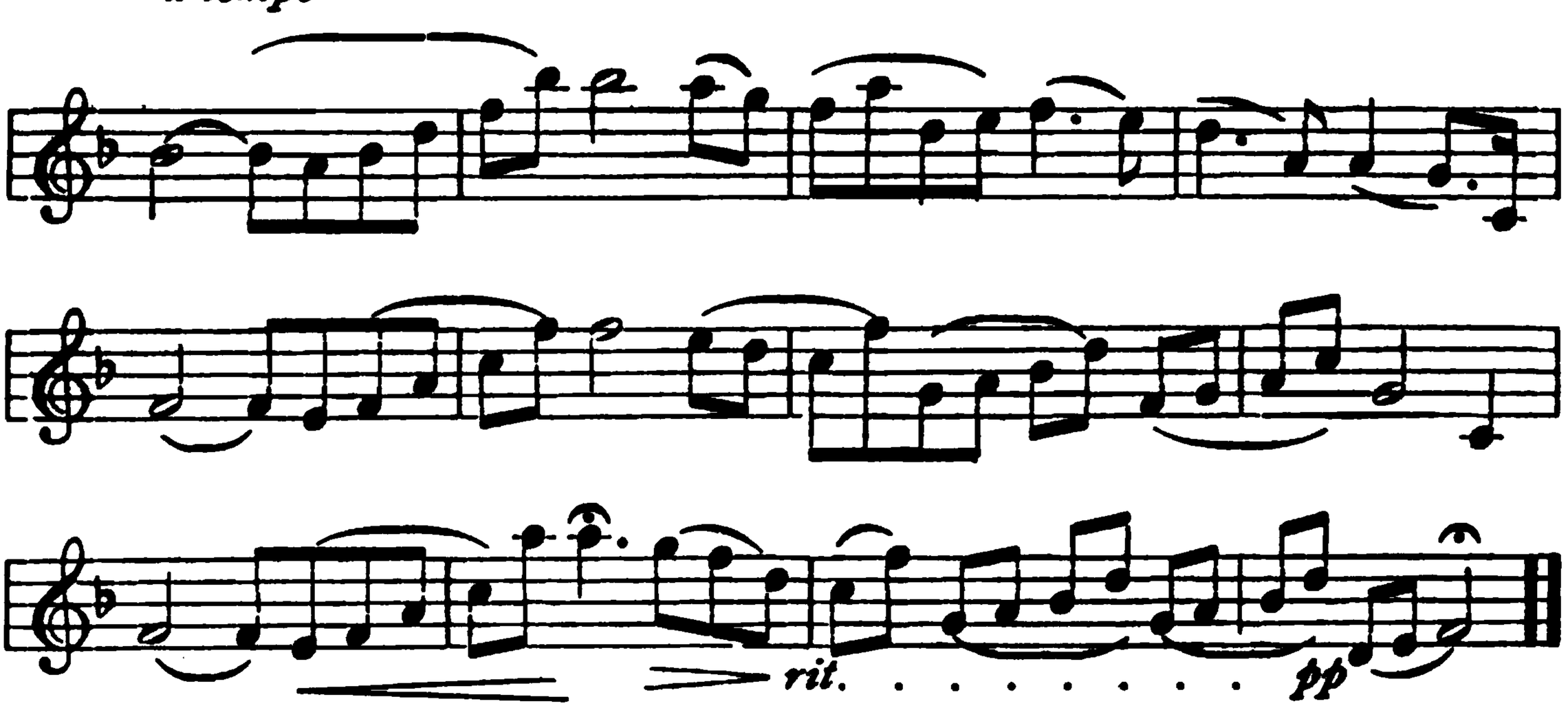
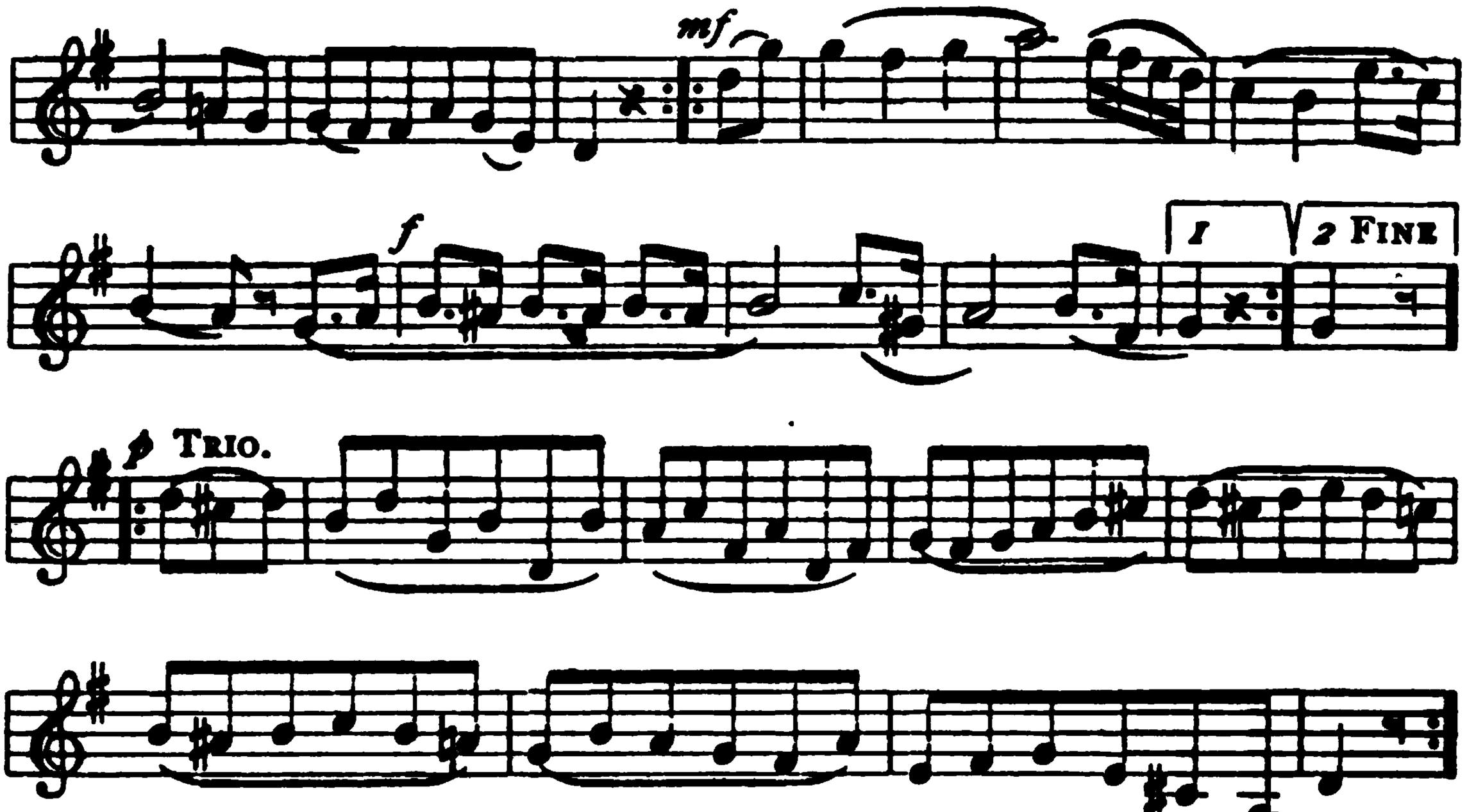

APPENDIX B.

MISCELLANEOUS EXERCISES.

1. Harmonize the following violin solo with pianoforte accompaniment.

2. **Harmonize the following 1st violin part for string quartet:**

R. SCHUMANN.

3. **Harmonize the following melody for pianoforte solo:**

MINUET. BEETHOVEN.

4. Compose a choral for mixed chorus to the following poem by Thomas Moore:

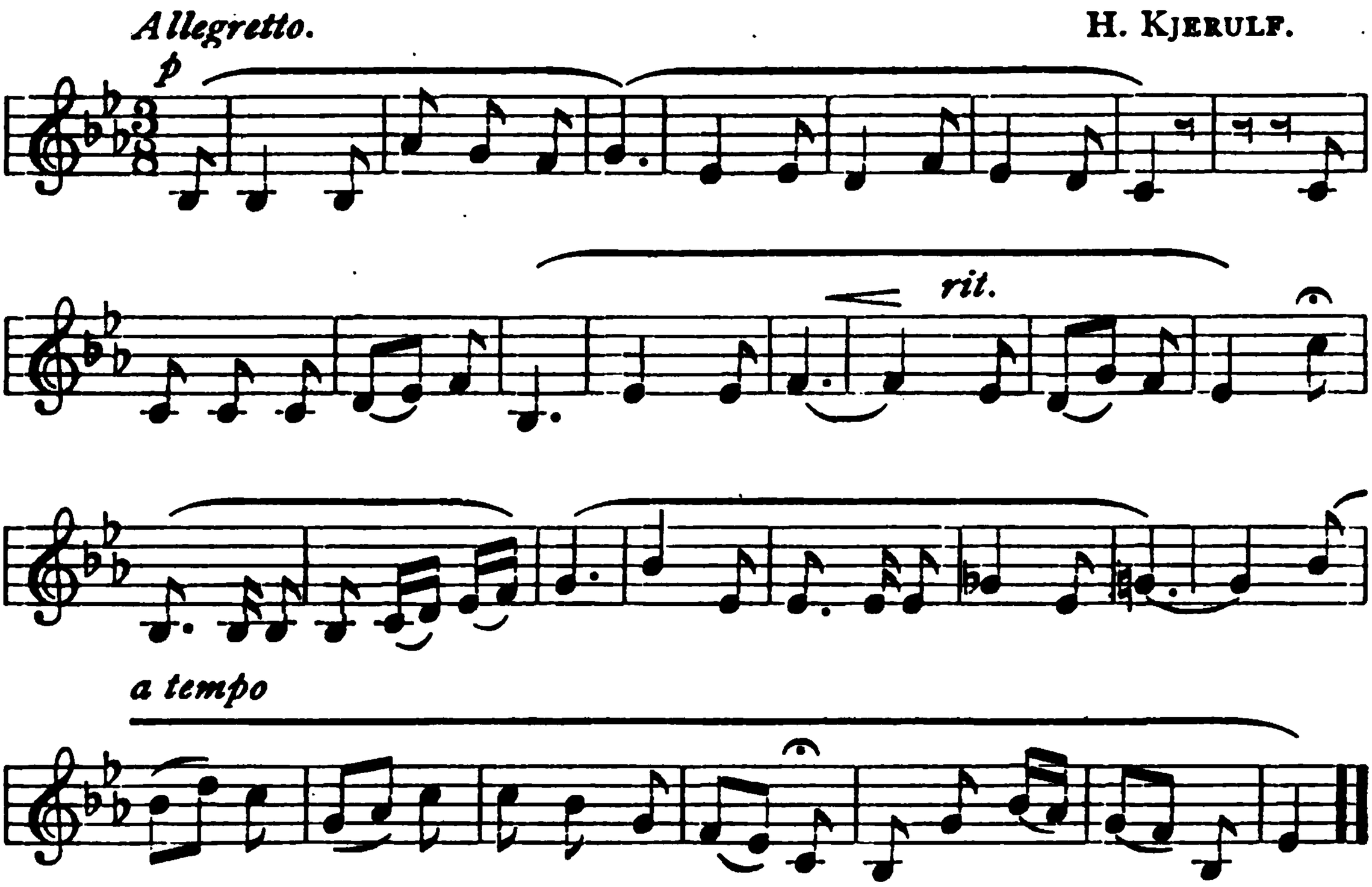
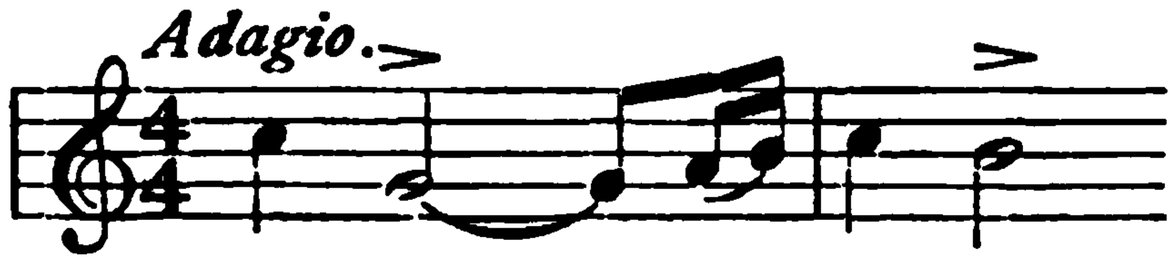
THOU ART, O GOD.

Thou art, O God, the life and light
Of all this wondrous world we see;
Its glow by day, its smile by night,
Are but reflections caught from thee;
Where'er we turn, thy glories shine,
And all things fair and bright are thine!

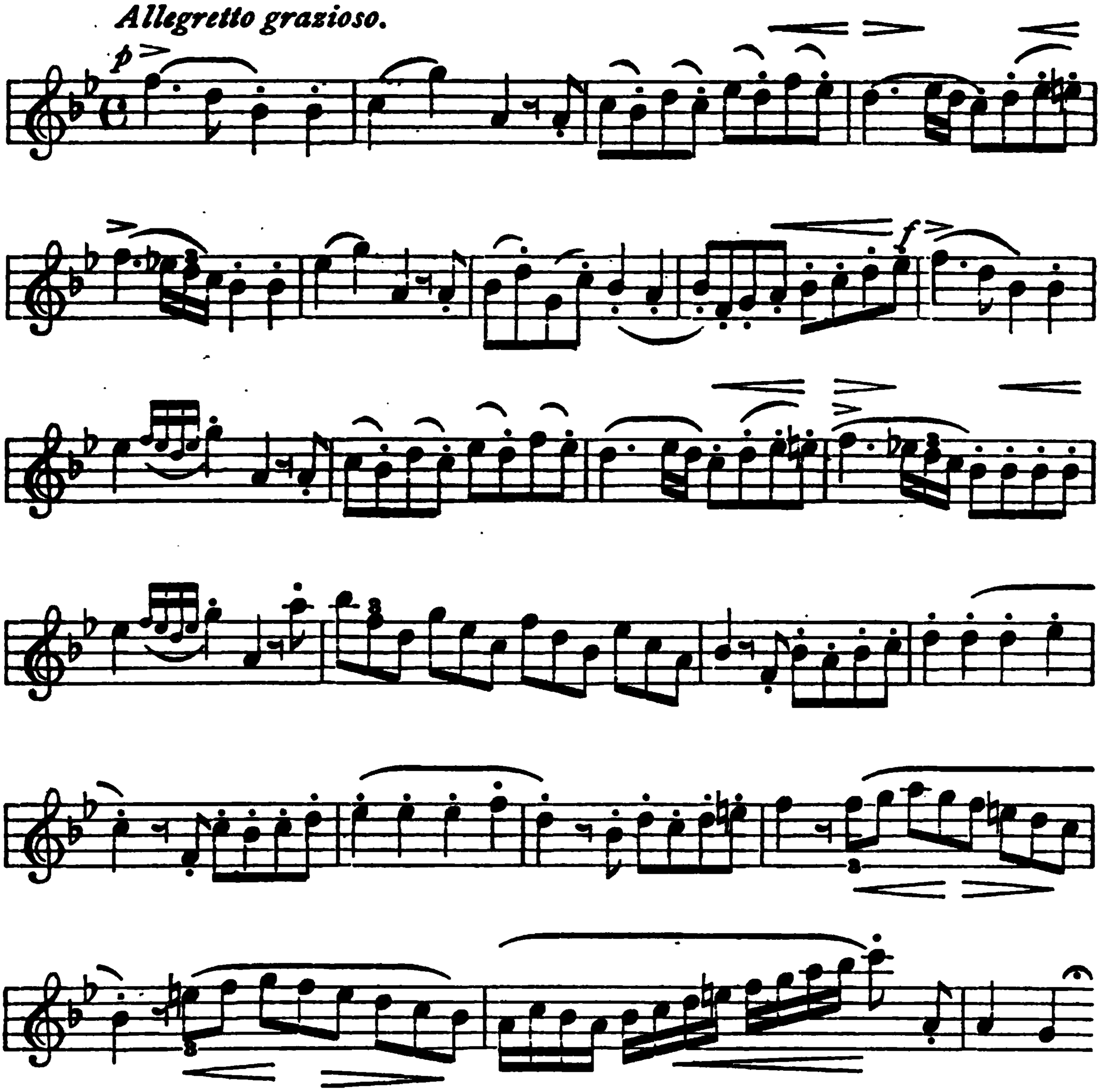
When day, with farewell beam, delays
Among the opening clouds of even,
And we can almost think we gaze
Through golden vistas into heaven,
Those hues, that make the sun's decline
So soft, so radiant, Lord! are thine.

When night, with wings of starry gloom,
O'ershadows all the earth and skies,
Like some dark, beauteous bird, whose plume
Is sparkling with unnumbered eyes,
That sacred gloom, those fires divine,
So grand, so countless, Lord, are thine.

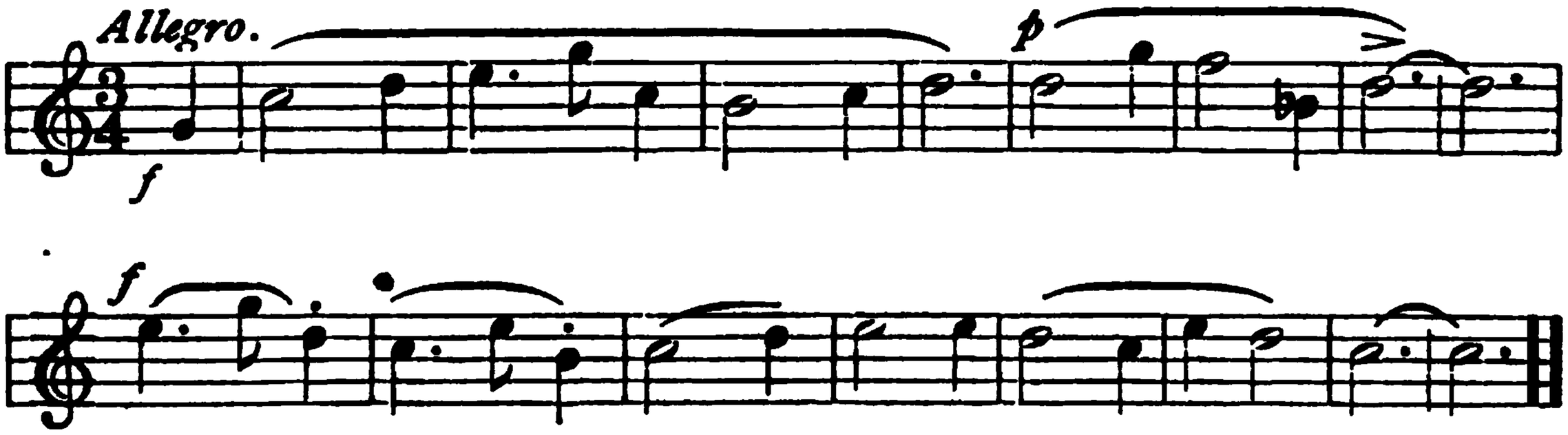
When youthful spring around us breathes,
Thy spirit warms her fragrant sigh;
And every flower the summer wreathes
Is born beneath that kindling eye.
Where'er we turn, thy glories shine,
And all things fair and bright are thine.

5. Harmonize the following song with pianoforte accompaniment. Supply an Introduction and Coda:

6. Compose a melody founded upon the following motive. Add a consequent period in a contrasting key and restate the first period. Harmonize for (1st) pianoforte solo, (2nd) string quartet, and (3rd) vocal quartet:

7. Compose three or more contrasting sections (themes, intermezzi or episodes) to the following subject. Harmonize for pianoforte and supply a Coda:

W. A. MOZART.

Allegretto grazioso.

8. Write four or more variations on the following theme. Harmonize for pianoforte solo or string quartet:

JOHN BULL.

Allegro.

APPENDIX C.

I. PRINCIPAL TRIADS OF THE MAJOR MODE IN ROOT POSITION.

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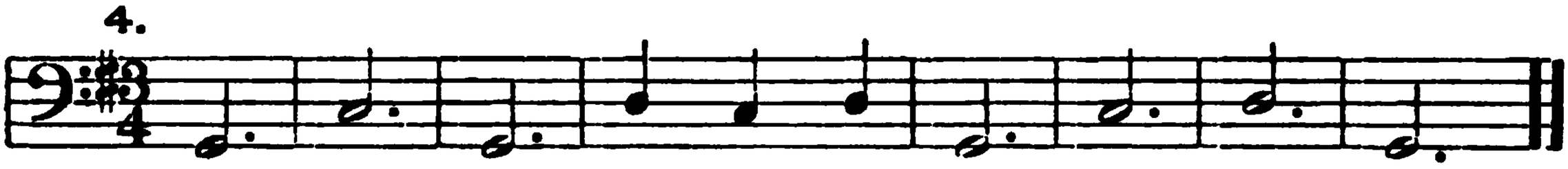
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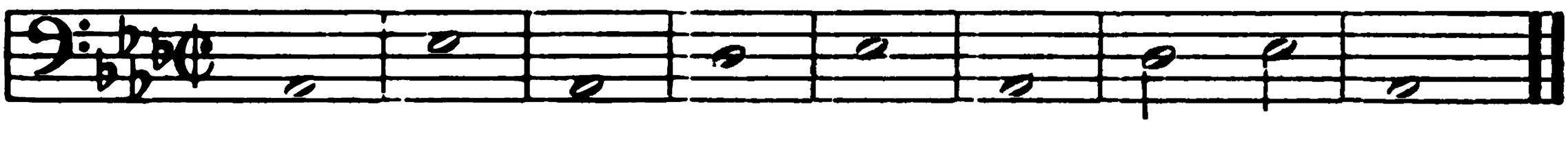
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7.

II. ALL THE TRIADS OF THE MAJOR MODE IN ROOT POSITION.

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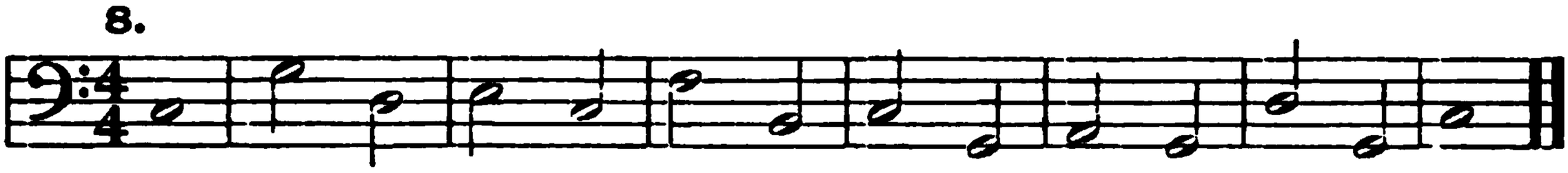

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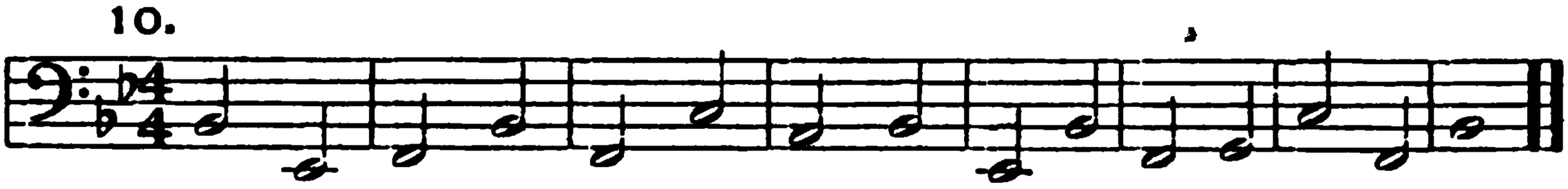
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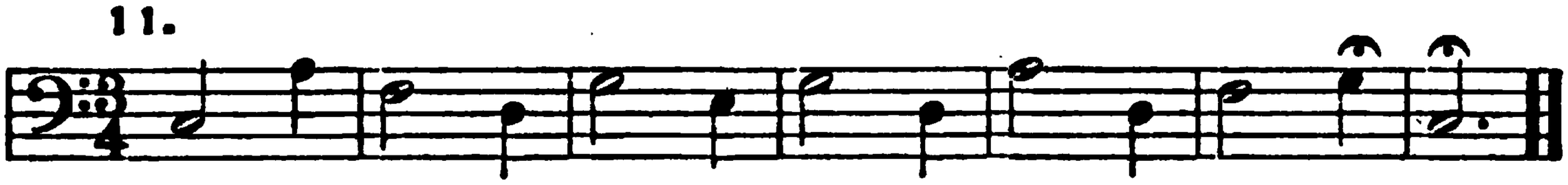
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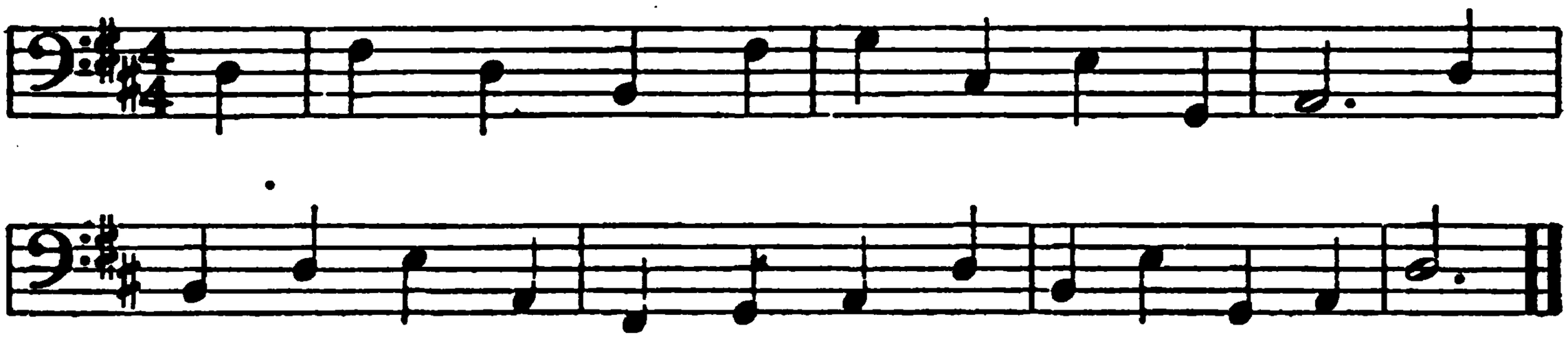
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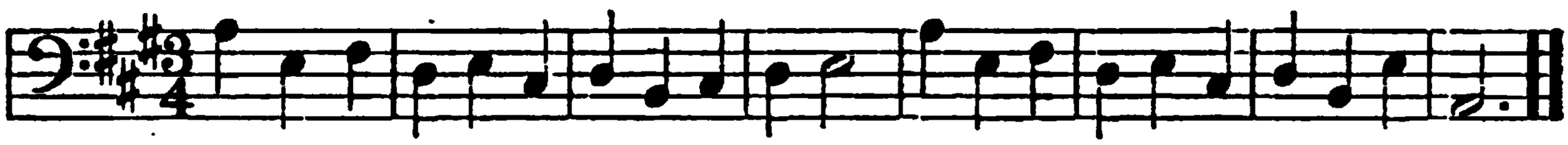
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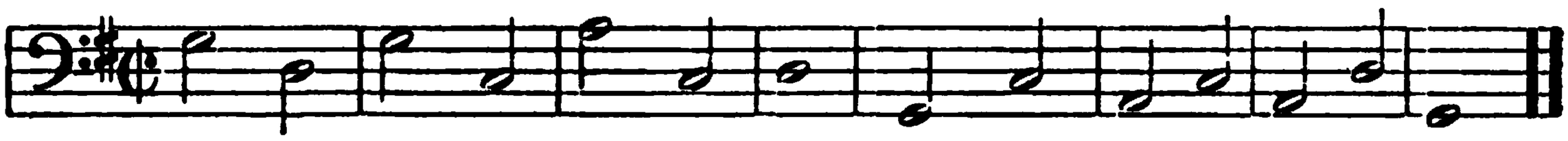

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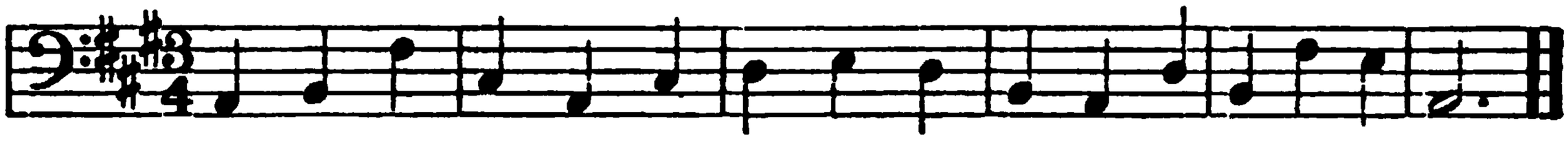
III. THE TRIADS OF THE MINOR MODE IN ROOT POSITION.

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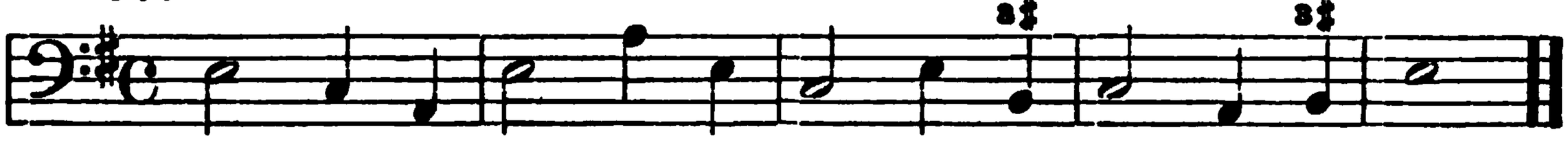
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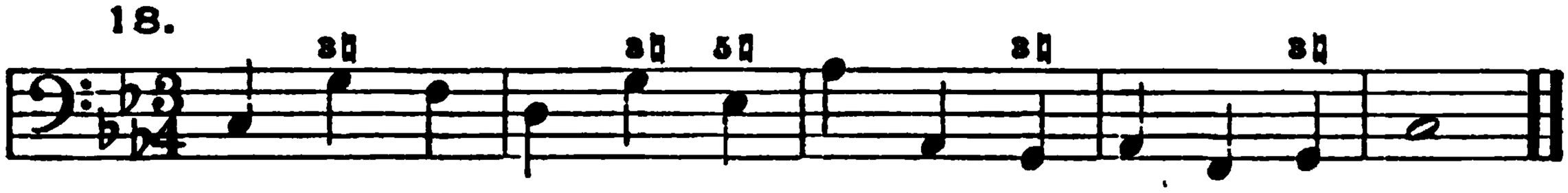
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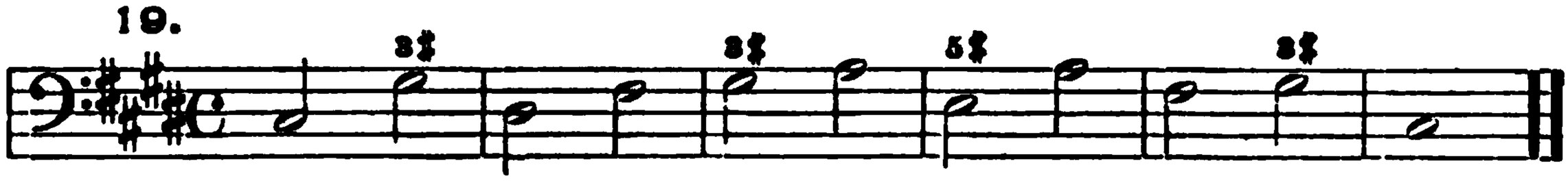
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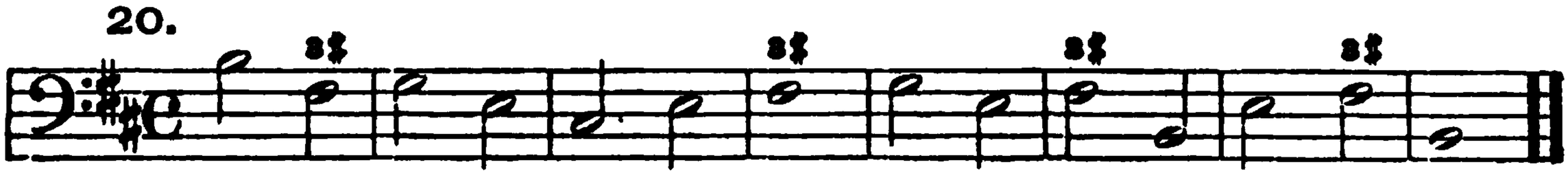

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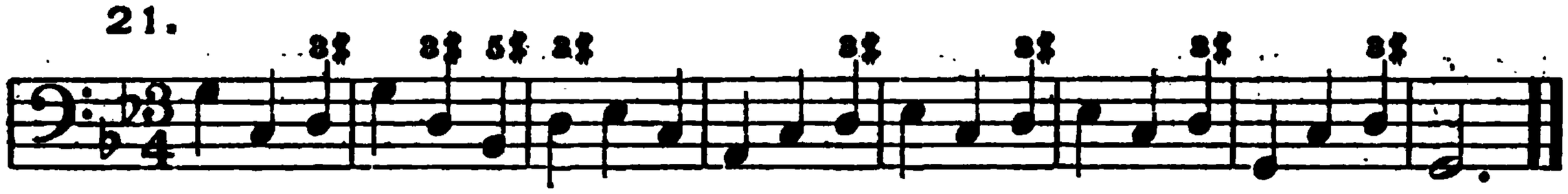
IV. INVERSIONS OF THE TRIADS.

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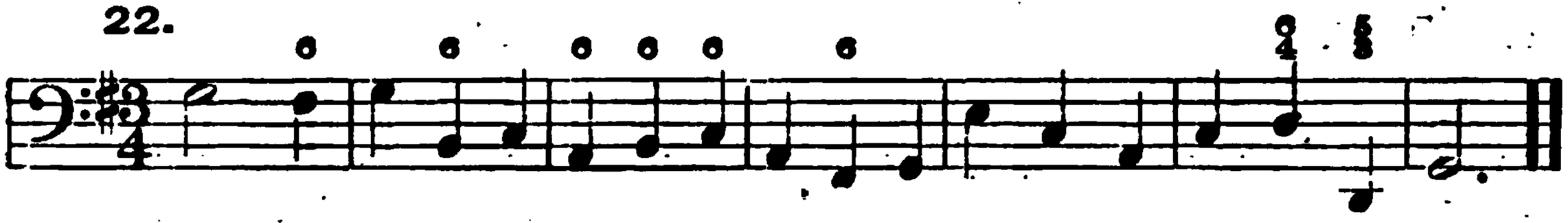
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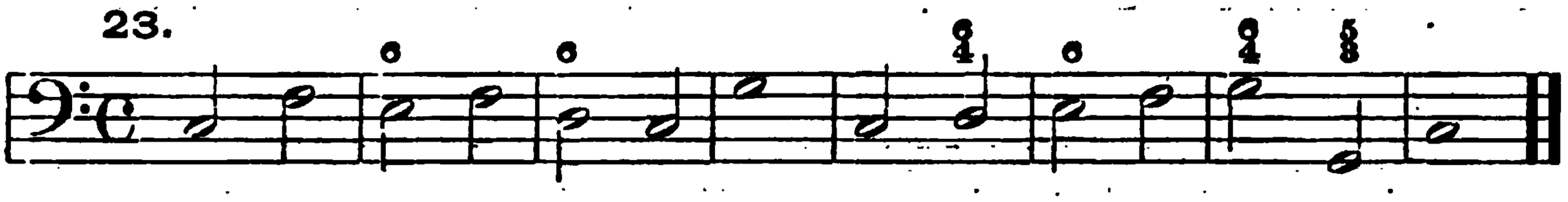

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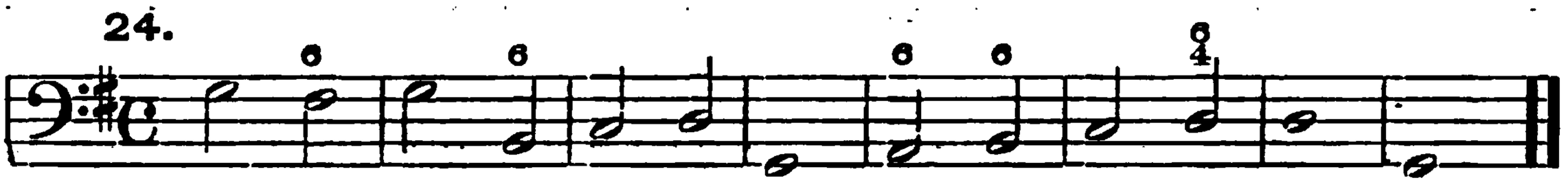
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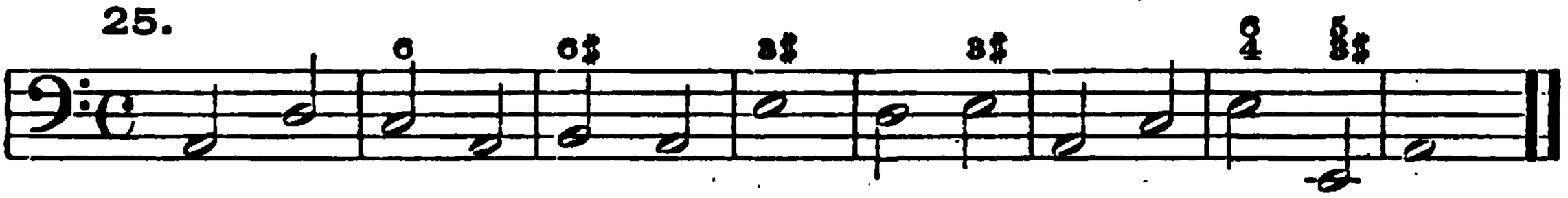
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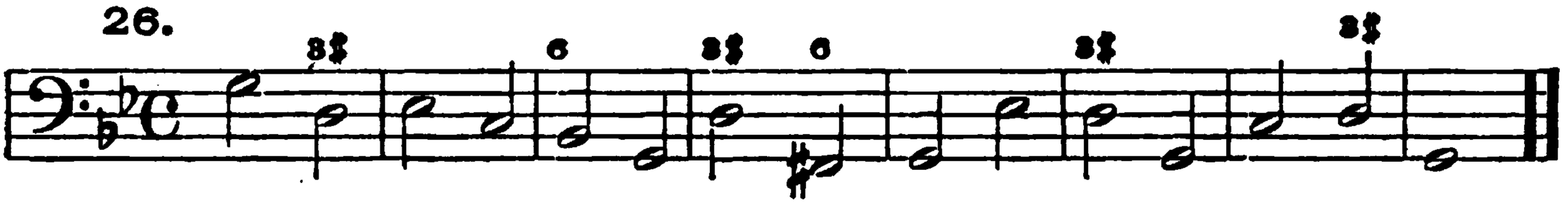
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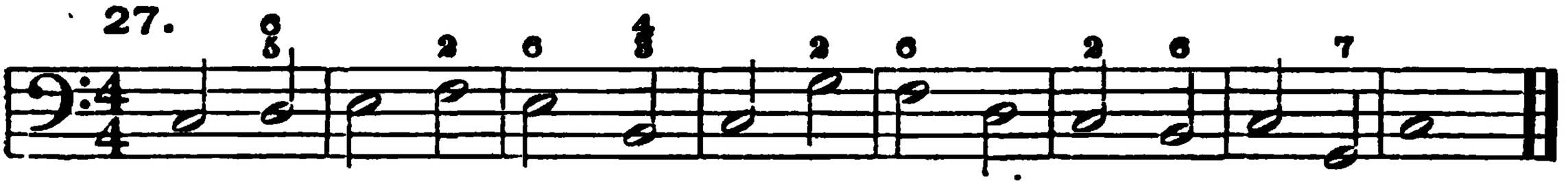
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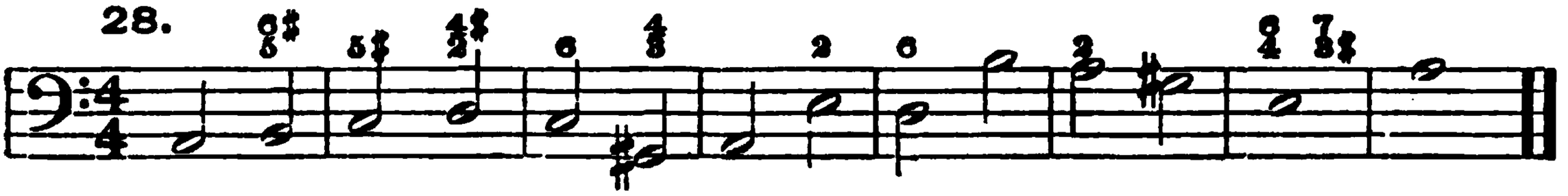
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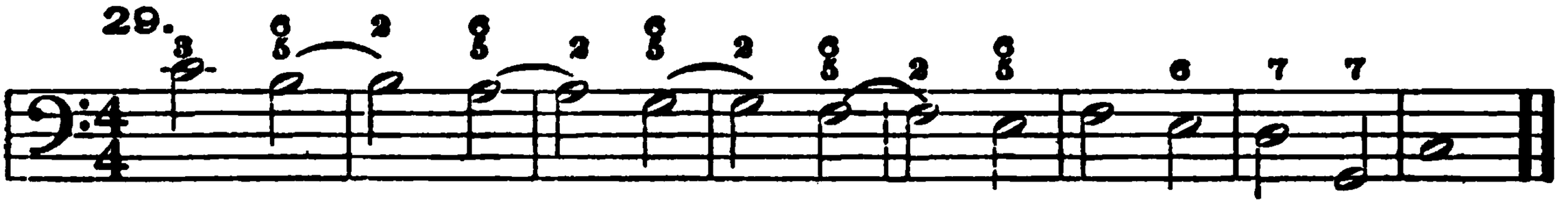

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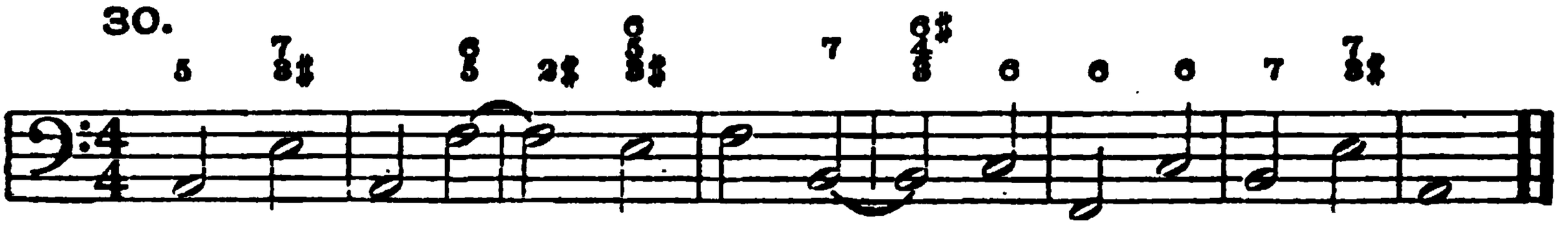
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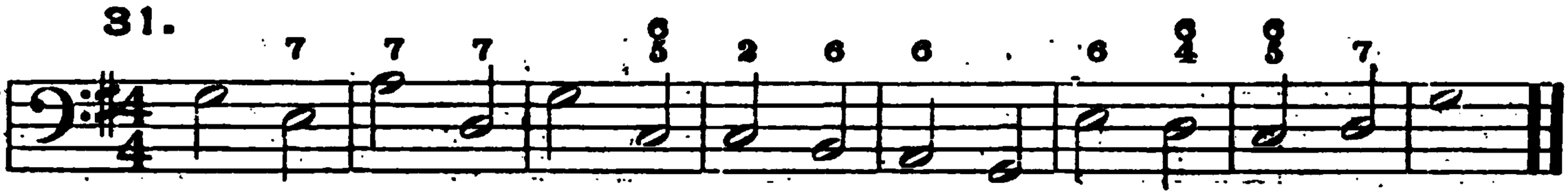

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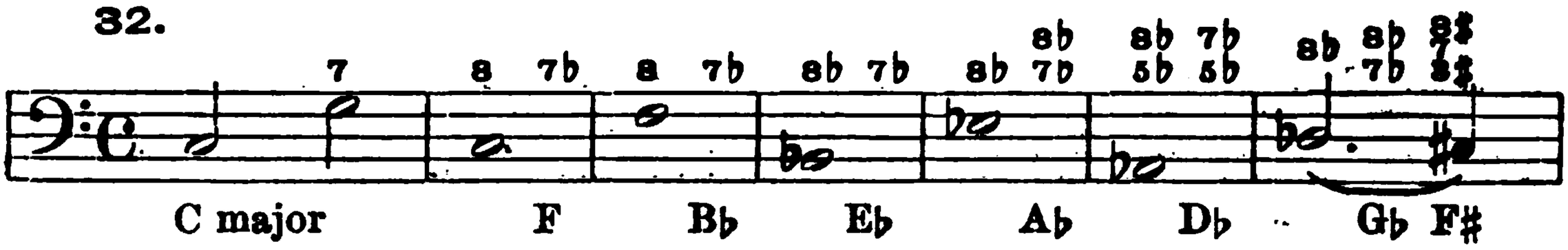
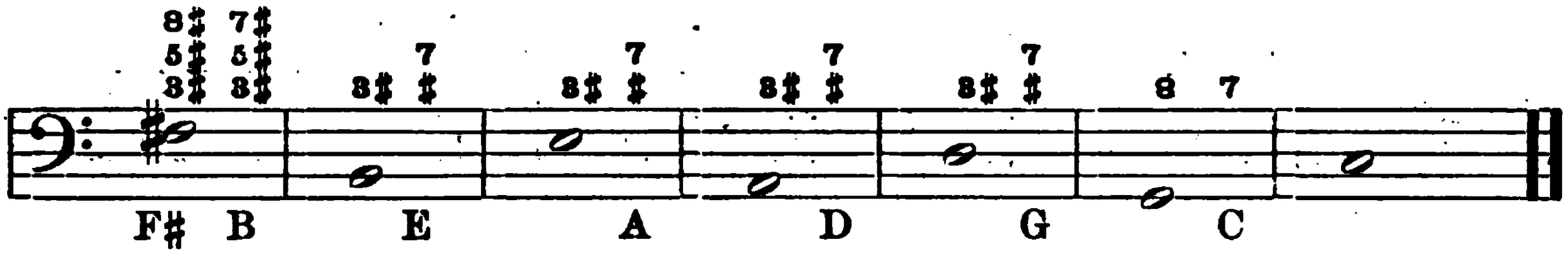


C major F B♭ E♭ A♭ D♭ G♭ F♯



F♯ B E A D G C

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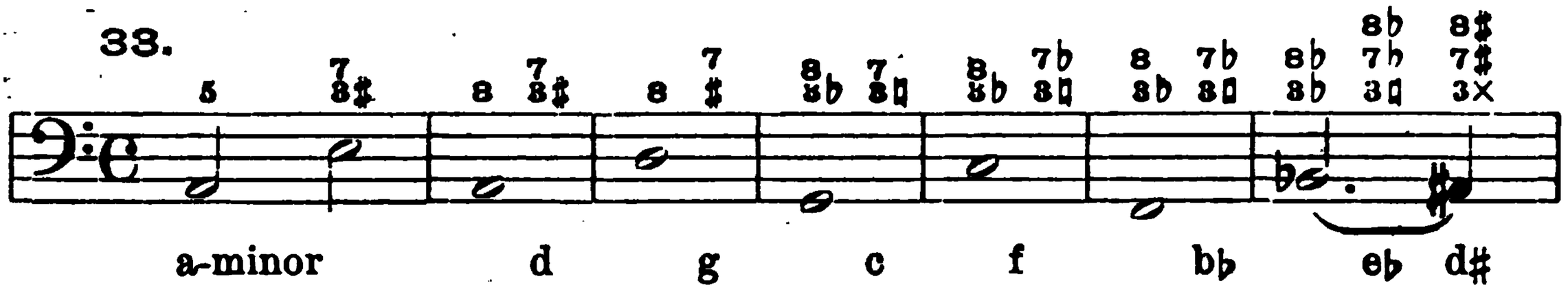
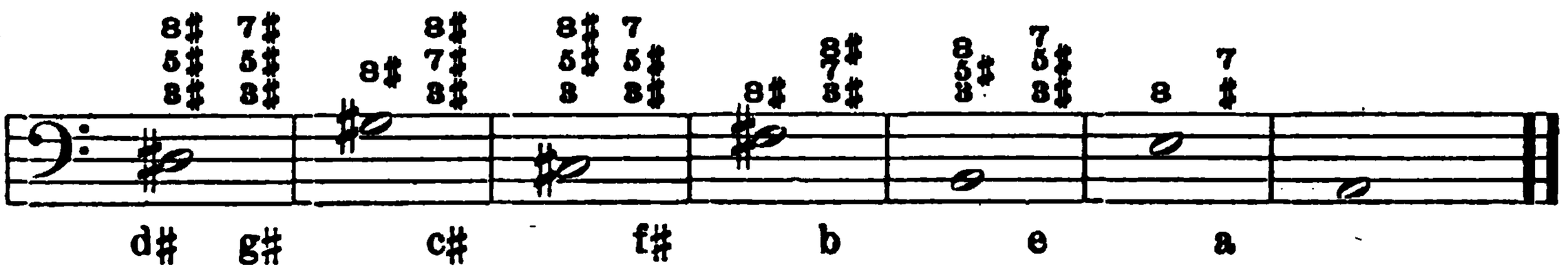


a-minor d g c f b♭ e♭ d♯



d♯ g♯ c♯ f♯ b e a

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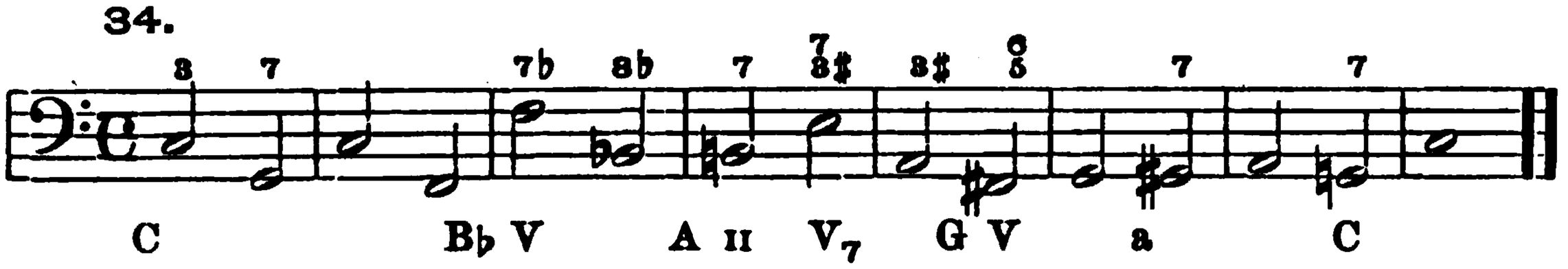
C B♭ V A II V_7 G V a C

JADASSOHN.

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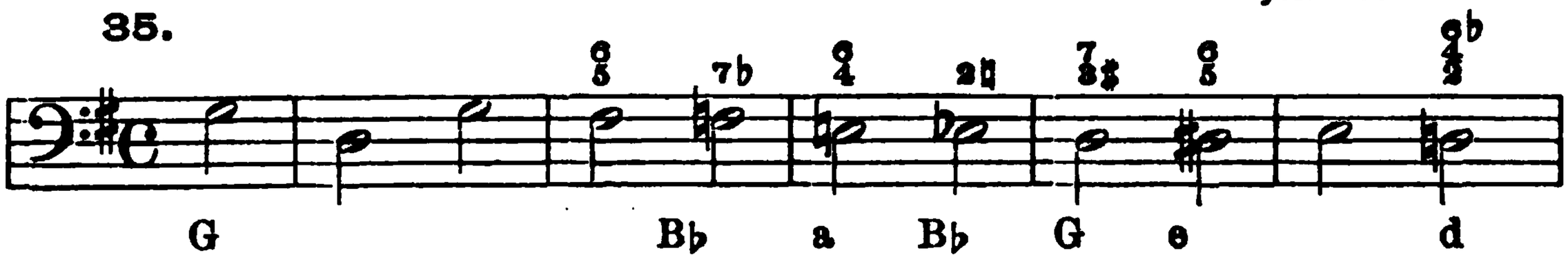
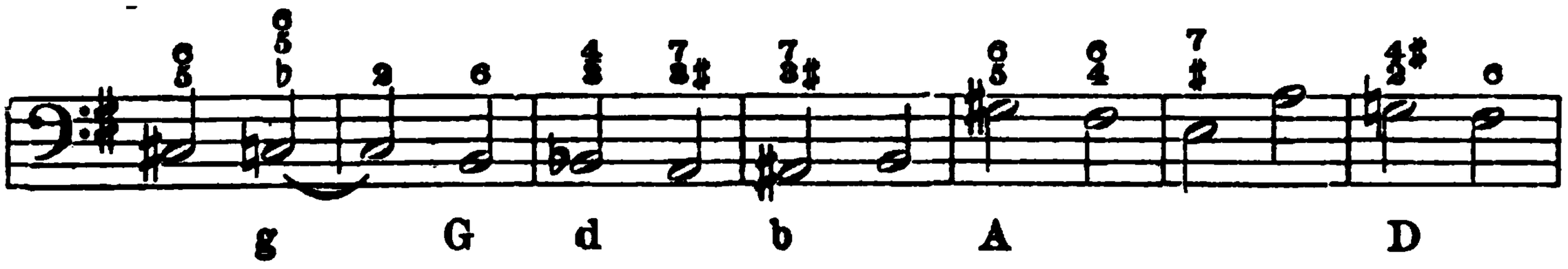
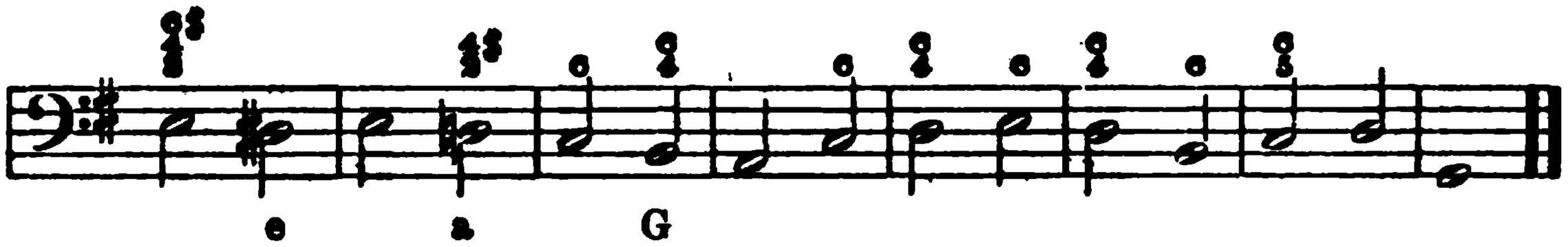


G B♭ a B♭ G e d



g G d b A D

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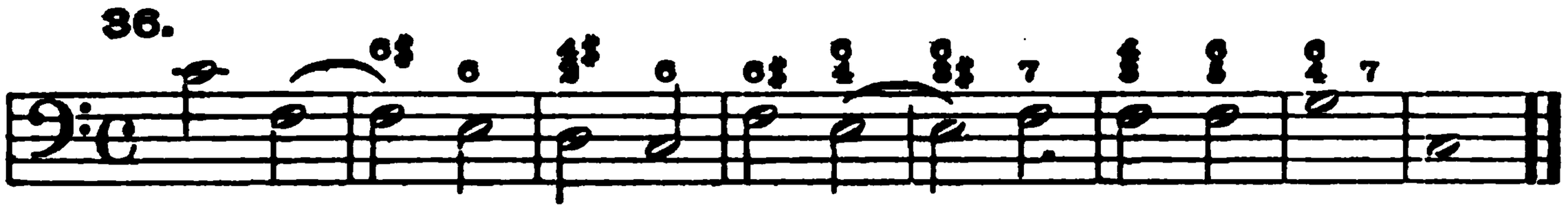
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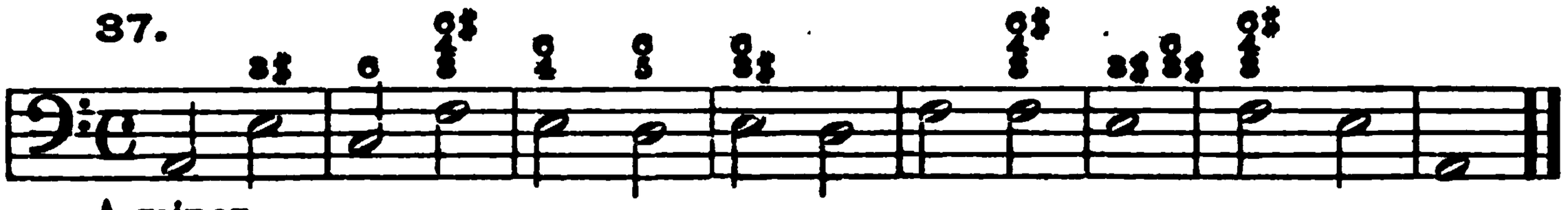
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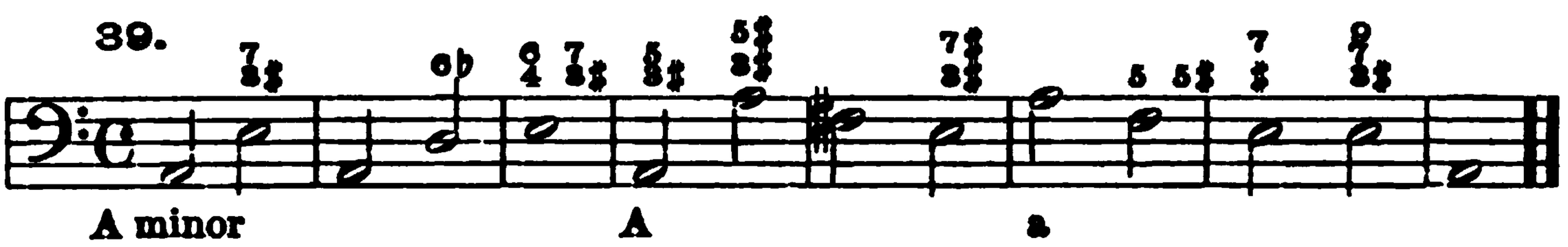
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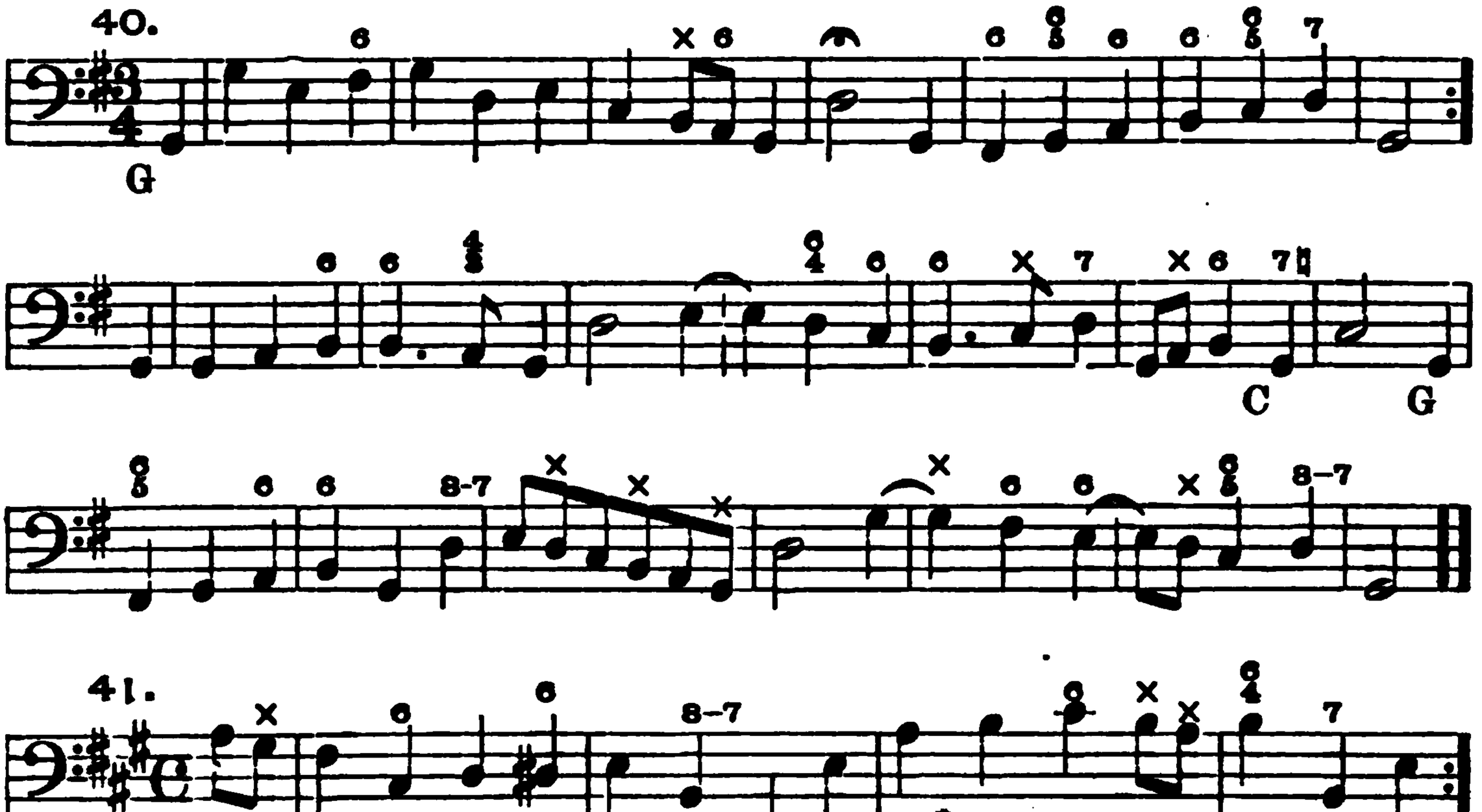
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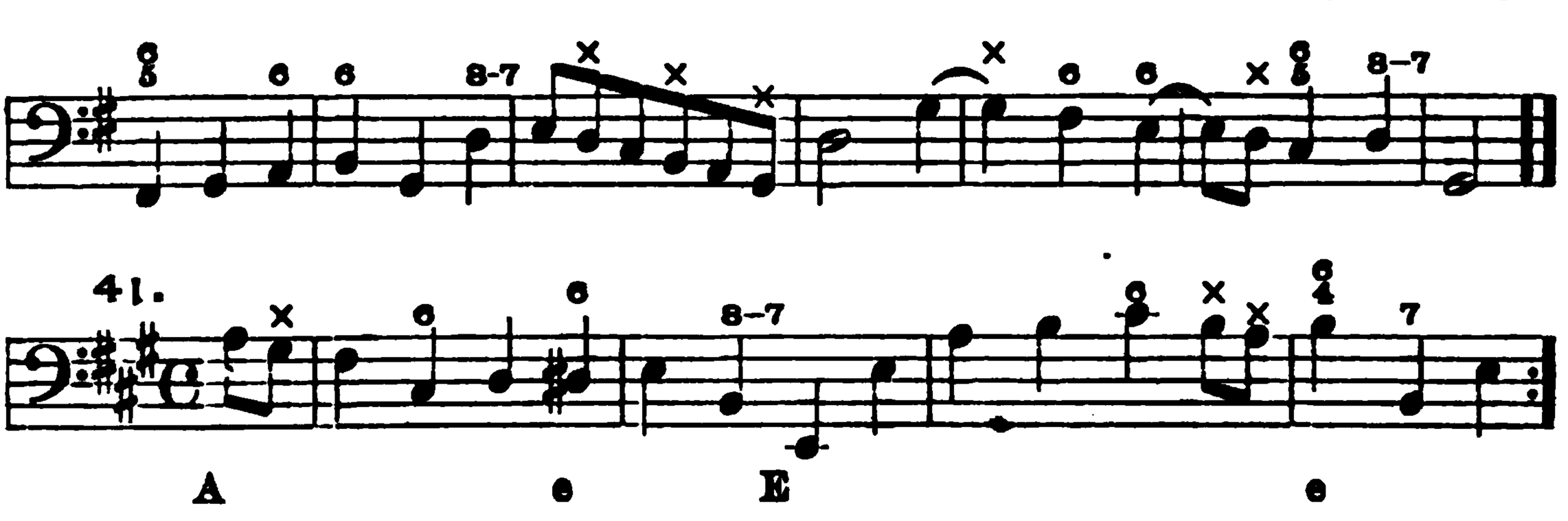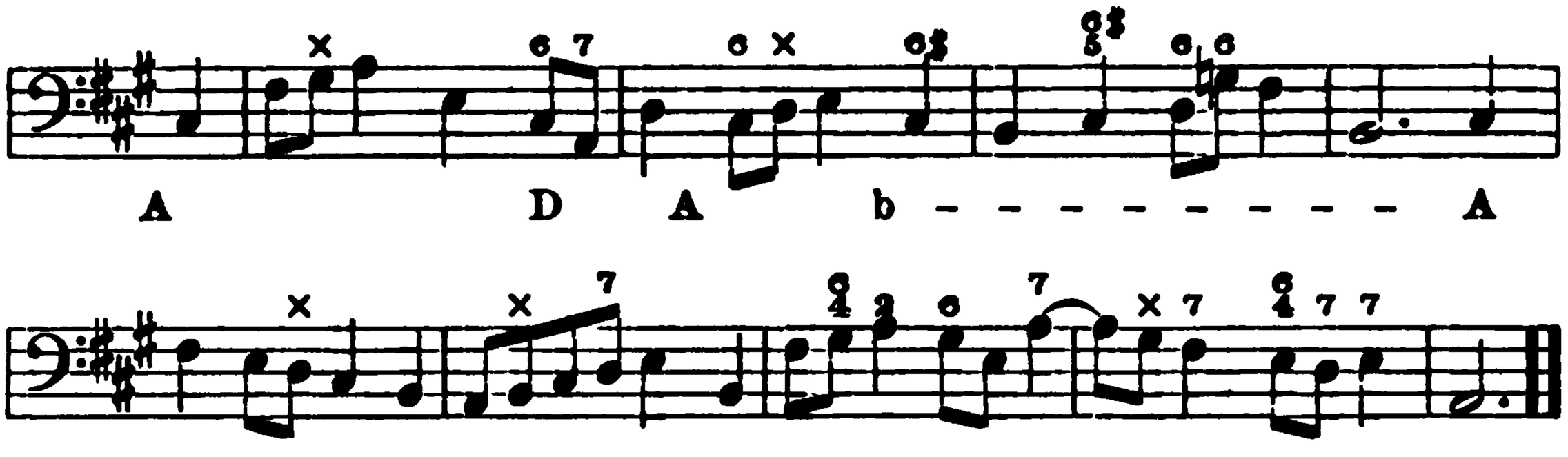

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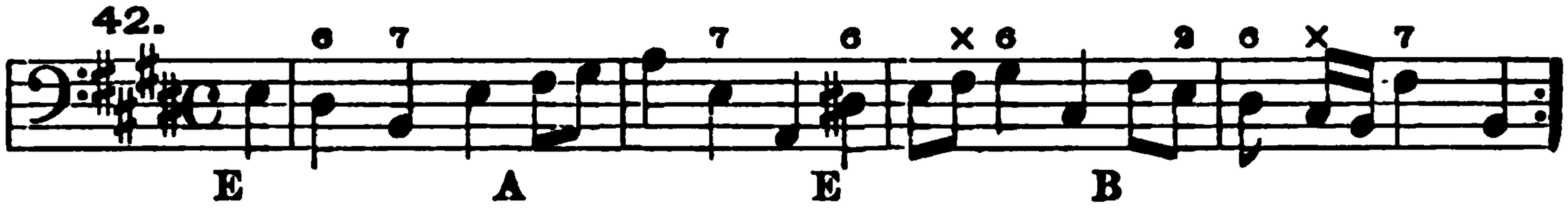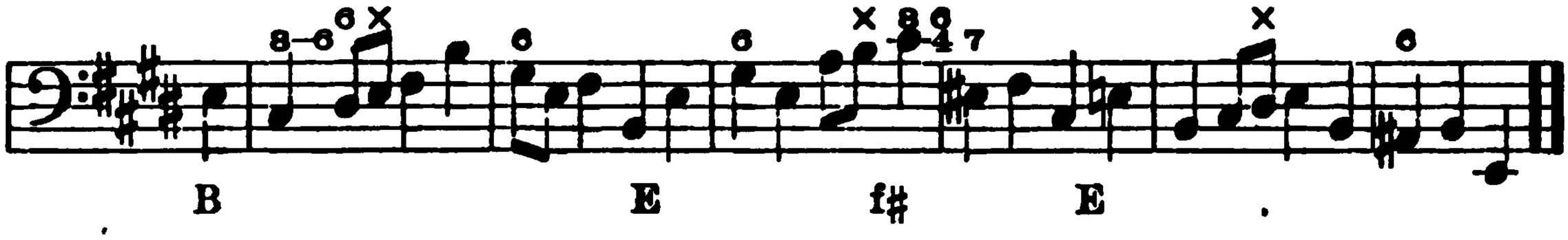

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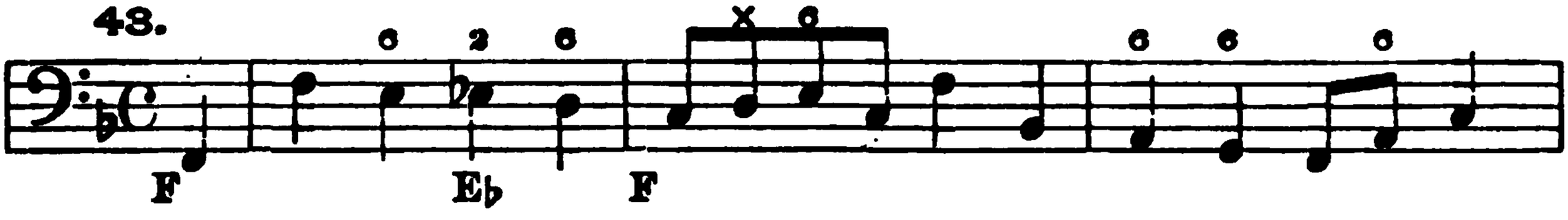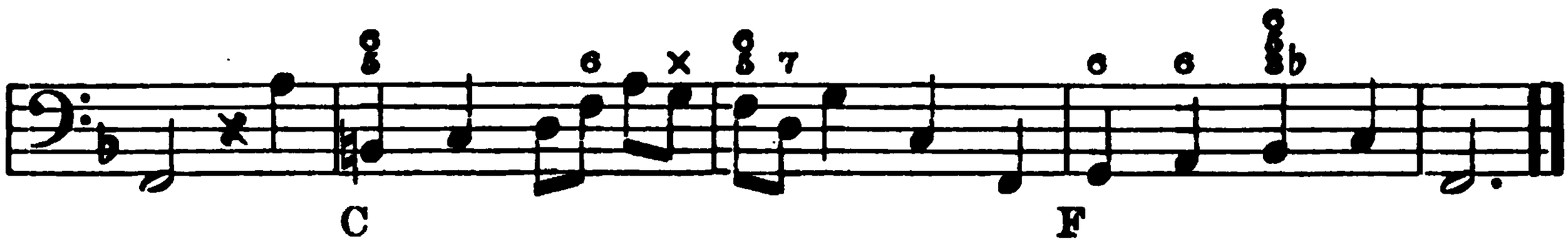

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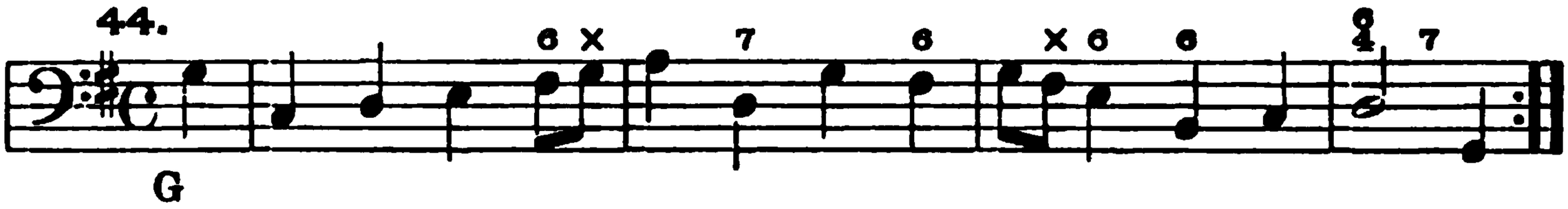
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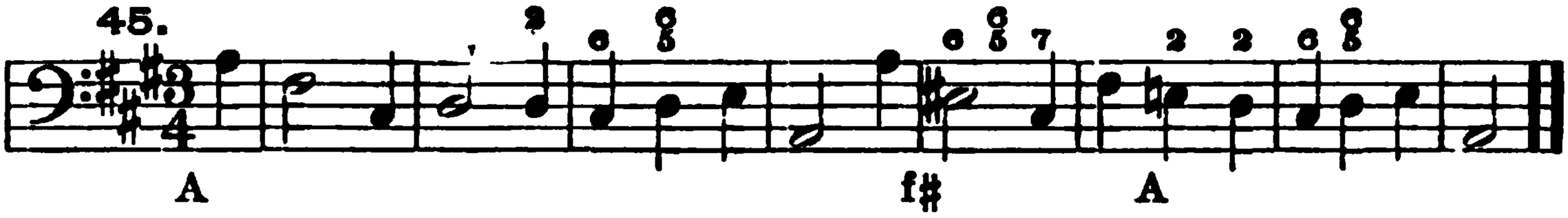
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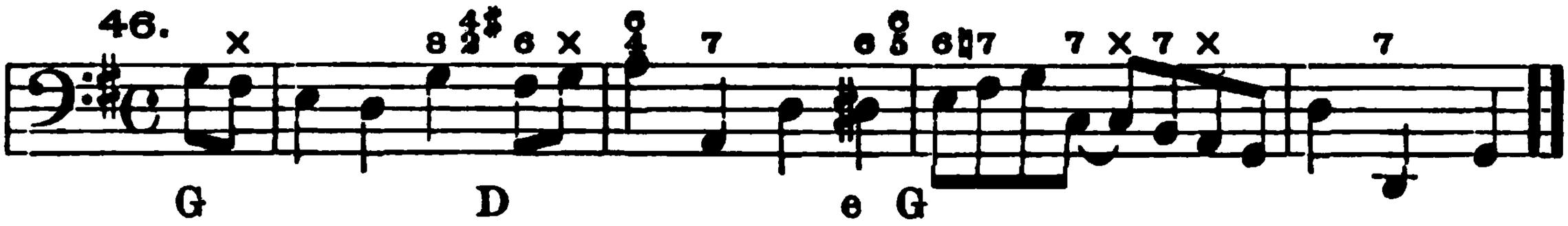

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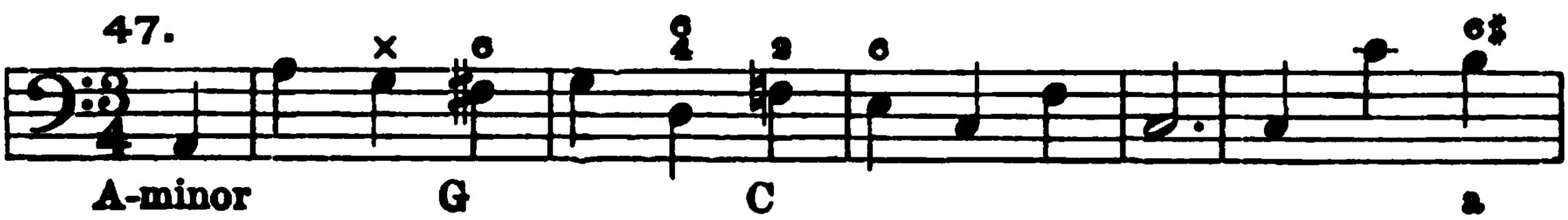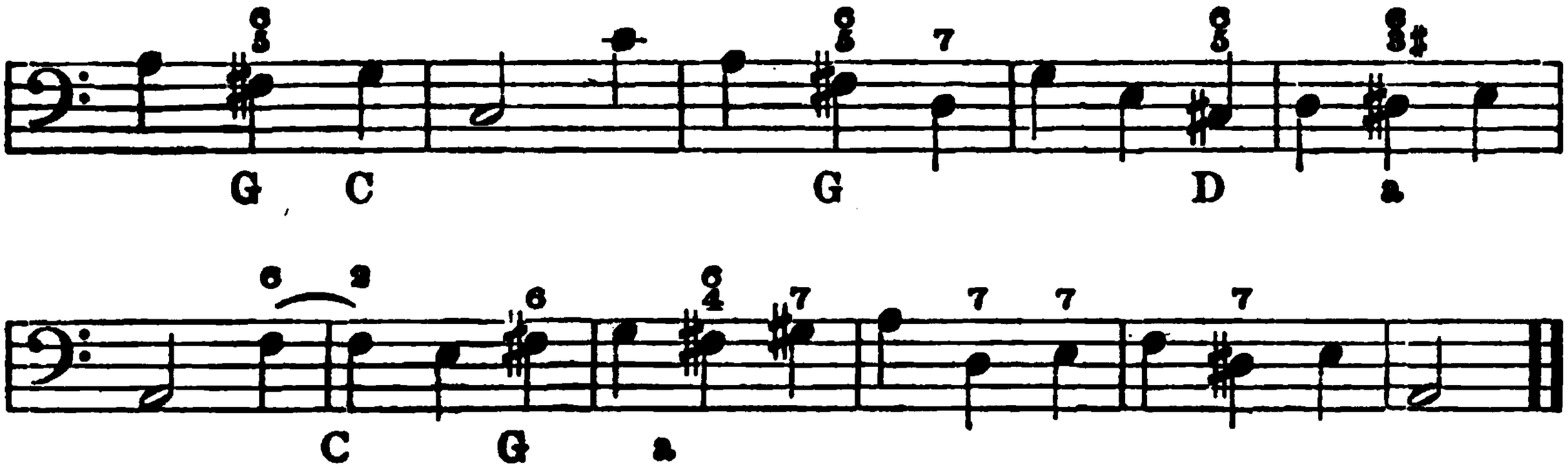

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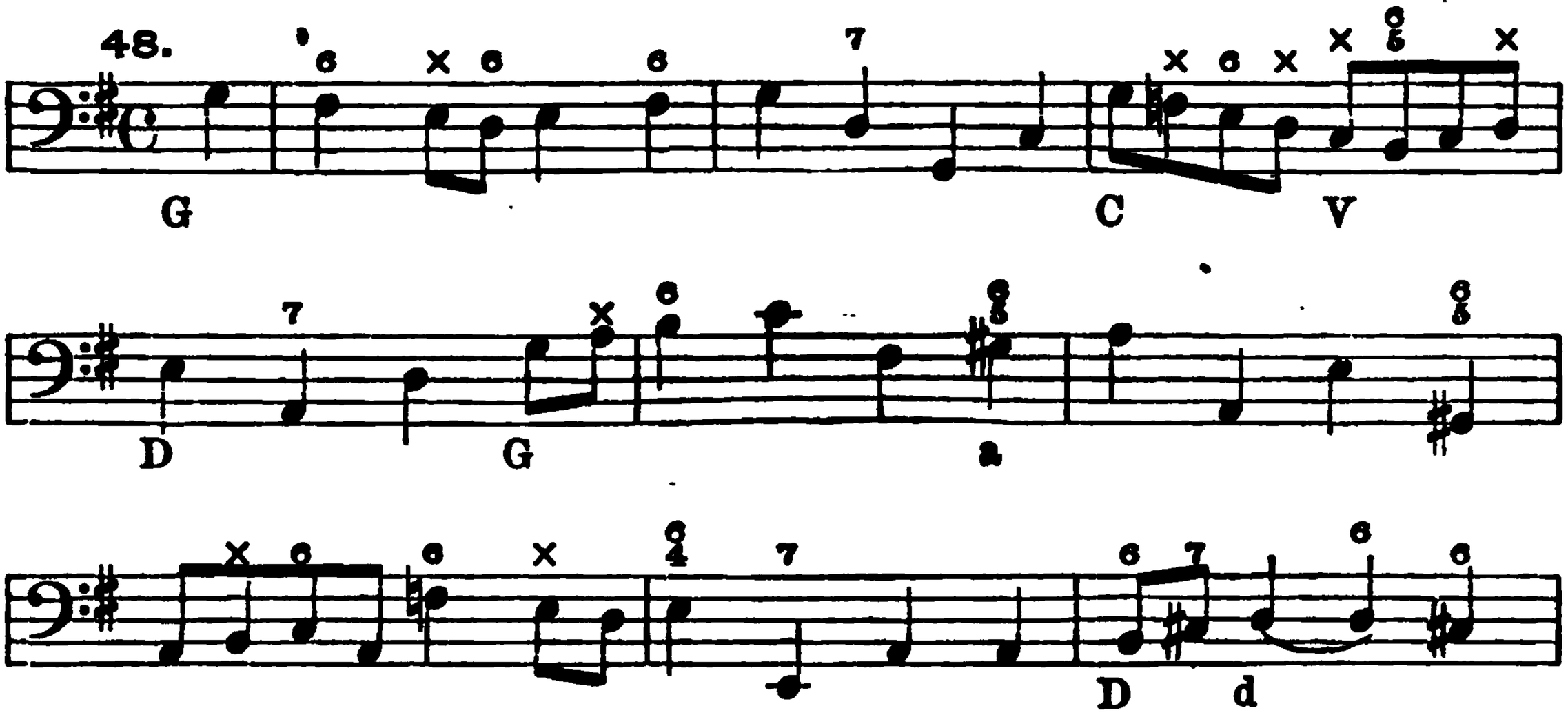
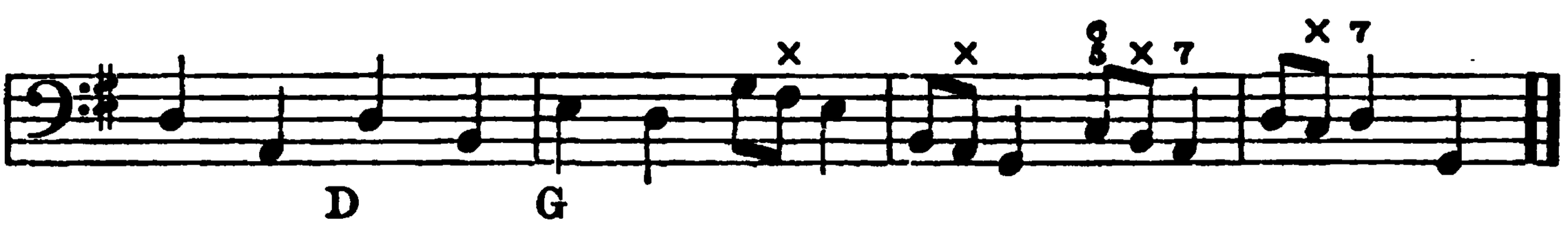

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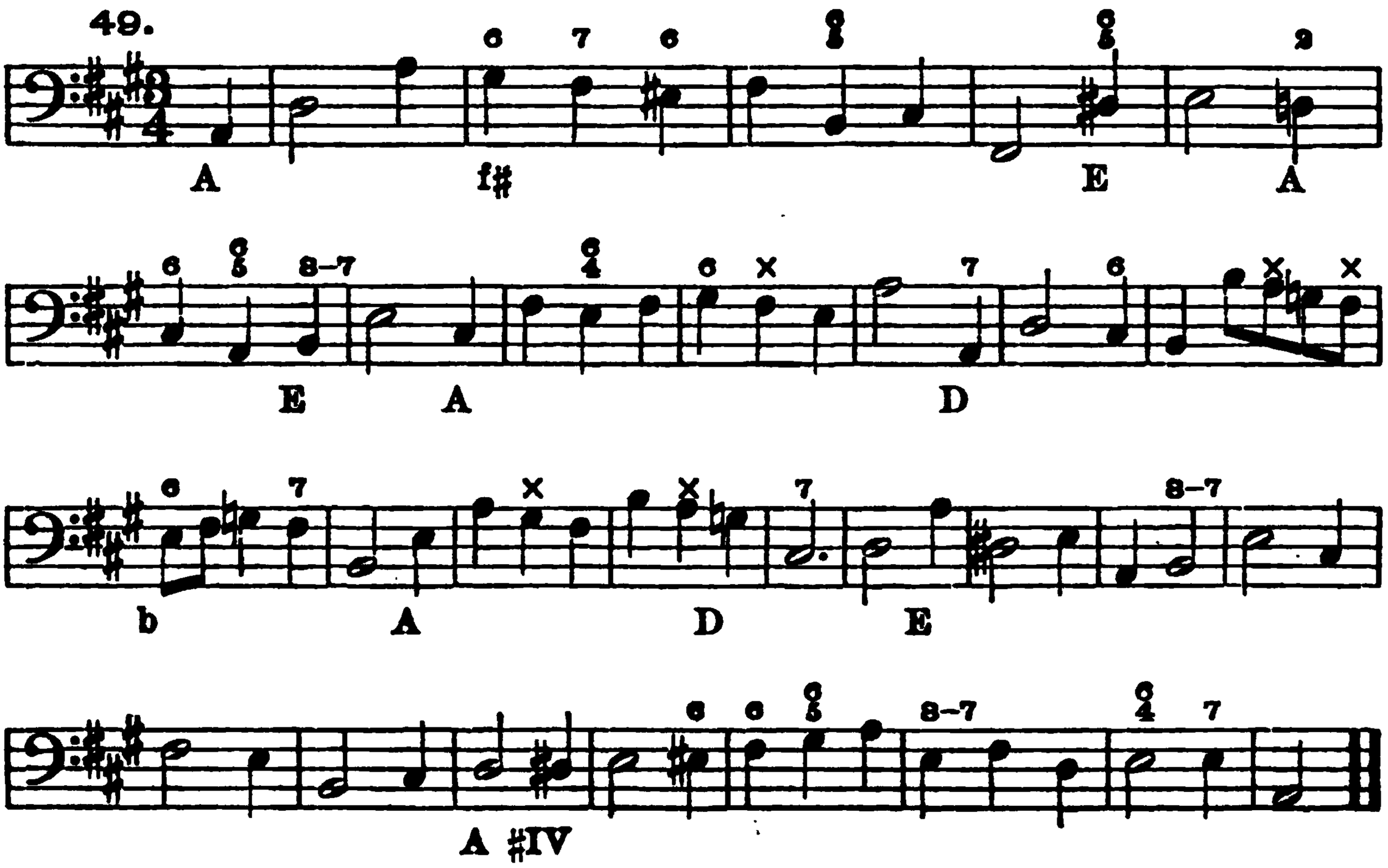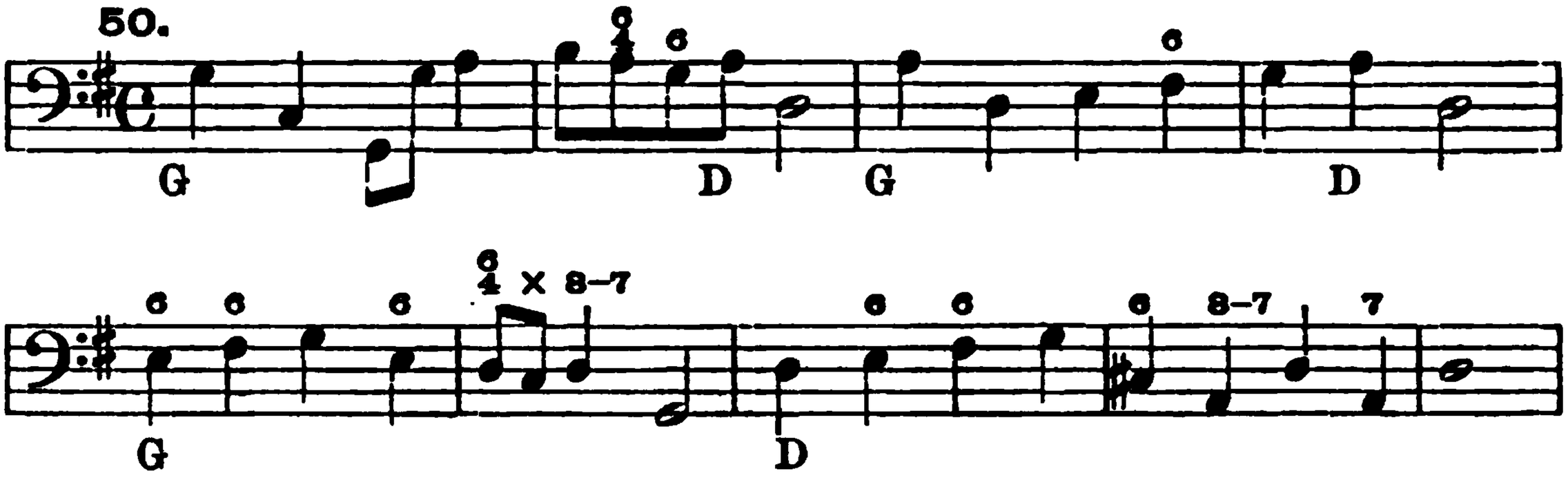
APPENDIX D.

DEFINITIONS.

Of the Technical Terms used in the Text.

ACTIVE. — A tone which is not final and when heard, leaves something to be desired. An active tone or chord has more or less definite tendency to progress to another tone or chord.

CADENCE. — A fall or close of a strain; inflection of rhythmic flow. (See *Cadencing Resolution* under *Resolution.*)

CHORDAL TONE. — A tone which is a member of the chord with which it sounds.

CONCEALED FIFTHS. — A progression in which any two voices, situated any distance apart other than a fifth, proceed in parallel motion to a fifth. (See *Parallel Fifths.*)

DISSONANCE. — A mingling of two or more tones with unrestful effect. The term is comparative, and the amount of activity inherent in any dissonant depends upon era, culture, and environment.

FACTOR. — A tone member of a chord; called in most text books "interval."

FIXED UNISON. — The result of the diatonic resolution to a unison of a voice part from the dissonant of the interval of a second.

FORM. — Arrangement of the parts and elements (rhythms, phrases, sections, periods, themes, and tonalities) constituent of music by which symmetry of outline is obtained with variety and unity.

HOMOPHONIC. — Pertaining to that style of composition having one predominating melody accompanied by other parts which supply the Harmony. Opposed to *polyphonic.*

IDIOMATIC. — Pertaining to a progression or usage which has become characteristic through constant application on the part of composers and is often opposed to logical theory.

MODULATION. — A consummate change of key which enters into the architecture of a composition.

MONOTONIC. — Characterized by a single main key.

MOTIVE. — A melodic germ. A group of notes from which a period, movement, or composition may be developed.

N.B. — Take notice.

NON-CHORDAL TONE. — A tone which is not a member of the chord with which it sounds.

The symbol (×) placed over notes denotes non-chordal tones. The symbol enclosed by parentheses signifies a chordal tone having a characteristic of a non-chordal tone.

PARALLEL 5THS. — A progression in which any two voices situated a fifth (or twelfth, etc.) apart proceed in parallel motion to another fifth.

CONSECUTIVE FIFTHS. — A progression in which any two voices situated a fifth (or twelfth, etc.) apart proceed in either contrary or parallel motion to another fifth. (See *Concealed Fifths*.)

PARALLEL 8THS. — A progression in which any two voices situated an octave (double octave, etc.) apart proceed in parallel motion to another octave.

CONSECUTIVE OCTAVES. — A progression in which any two voices situated an octave (double octave, etc.) apart proceed in either contrary or parallel motion to another octave.

PERIOD. — A complete musical sentence.

PHRASE. — A portion of a period terminating with a cadence.

POLYPHONIC. — Pertaining to that style of composition having two or more independent melodies simultaneously, harmonizing one with another. Opposed to *homophonic*.

RESOLUTION. — The progression of a dissonant chord to another chord such as permits the factors of the former to proceed according to their tendencies.

CADENCING RESOLUTION. — The resolution of a dissonant chord to the chord whose root is situated a fourth above (or a fifth below) the root of the former chord.

NON-CADENCING RESOLUTION OR PROGRESSION. — A resolution or progression of a chord to any chord other than the one whose root is situated a fourth above (or a fifth below) the root of the former chord.

TENDENCY. — A characteristic attribute of active tones.

TRANSITION. — A transient change of key.

TRIAD. — A chord of three tones.

Major Triad consists of a "root" (or fundamental) tone; its major 3rd and its perfect 5th.

Minor Triad consists of a root tone, its minor 3rd and its perfect 5th.

Diminished Triad consists of a root tone, its minor 3rd and its diminished 5th.

Augmented Triad consists of a root tone, its major 3rd and its augmented 5th.